

THE ASYMMETRY PRINCIPLE:
A FUNCTIONAL INVESTIGATION OF TRANSITIVITY AND TOPIC-COMMENT
STRUCTURING IN ENGLISH

By

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This project is dedicated to Dr. Gerald Eugene Merwin,
My Father,
who is not alive to see its completion
yet has everything to do with it being done.

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TABLE OF CONTENTS

	page
ACKNOWLEDGMENTS.....	iii
LIST OF FIGURES.....	vi
ABSTRACT.....	vii
CHAPTERS	
1 FUNCTIONAL AND DISCOURSE MODELS OF TRANSITIVITY.....	1
1.1 Introduction.....	1
1.2 M.A.K. Halliday.....	3
1.3 Approaches to Transitivity.....	5
1.3.1 Verb-Oriented Theories.....	6
1.3.2 Clause-Oriented Theories.....	8
1.3.2.1 Propositional models.....	8
1.3.2.2 Hopper and Thompson, 1980.....	11
1.3.2.3 Cognitive models.....	12
1.3.3 Extra-Clause Oriented Theories.....	15
1.3.4 Transitivity and Text.....	19
1.4 Overview of Project.....	20
2 TOWARDS A WORKING DEFINITION OF TRANSITIVITY.....	23
2.1 Introduction to the Problem.....	23
2.2 Syntax.....	25
2.2.1 Grammatical Behavior.....	26
2.3 The Semantics of Transitivity.....	27
2.3.1 The Active, Affirmative, Declarative Prototype.....	29
2.3.2 The Transitive Prototype: One or Many?.....	30
2.3.2.1 Berman and Slobin revisited—event construal.....	40
2.3.2.2 Degrees of transitivity.....	42
2.3.3 Event Structure and Transitivity.....	43
2.3.4 "Agent," "Patient," and Other Labels.....	46
2.3.5 Verbal Modality.....	50
2.3.5.1 Fast-paced.....	50
2.3.5.2 Completed.....	51
2.3.5.3 Perceptually-cognitively salient.....	52
2.4 Transitivity and Time.....	55
2.5 The Asymmetry Principle in Cognition and Communication.....	60
2.6 Concluding Remarks.....	62
3 TOWARDS A MULTI-VARIABLE DISCOURSE MODEL OF TRANSITIVITY IN ENGLISH.....	65
3.1 Opening Remarks.....	65
3.1.1 Thematic Coherence.....	66
3.1.2 Perspective.....	67
3.1.3 Management of Perspective.....	68

3.1.4	The Model in Brief.....	69
3.2	Discourse Topicality.....	72
3.3	Perspectival Distance.....	79
3.4	The Four Clause Types of Transitivity.....	83
3.4.1	Telic Transitives.....	84
3.4.2	Atelic Transitives.....	88
3.4.3	Intransitives/Durative Transitives.....	95
3.4.4	Dispersed Transitives.....	96
3.5	Deep and Shallow Transitivity.....	99
3.6	Quantitative Patterns.....	103
3.7	Concluding Remarks.....	105
4	TRANSITIVITY IN EXPOSITORY TEXT.....	107
4.1	Opening Remarks.....	107
4.2	Towards a Linguistic Definition of Expository Text.....	108
4.2.1	Narrative versus Expository Text.....	108
4.2.1.1	Differences.....	108
4.2.1.1.1	Theme.....	109
4.2.1.1.2	Linkage.....	111
4.2.1.2	Similarities.....	115
4.2.1.2.1	Argument Line.....	115
4.2.1.2.2	Illocutionary Force.....	117
4.3	Topic-Comment Structuring in Expository Text.....	119
4.3.1	The Role of Adverbial Expressions: Continuation Spans.....	120
4.3.2	The Role of Transitivity in Expository Text: Transition Spans.....	126
4.3.2.1	Transitivity and topic-switching.....	126
4.3.2.2	Micro-texts and bridge spans.....	127
4.3.3	Bridge Spans and Transitivity.....	131
4.3.4	Passives in Expository Text.....	134
4.4	Concluding Remarks: Topic-Comment Structuring and Asymmetry.....	137
5	TRANSITIVITY: CREATIVITY AND CONSTRAINT.....	139
5.1	Summary of Results.....	139
5.2	Final Remarks.....	143
	BIBLIOGRAPHY.....	146
	BIOGRAPHICAL SKETCH.....	153

LIST OF FIGURES

FIGURES	page
Figure 1.1 Halliday's Six Categories of Clause Types.....	4
Figure 2.1 Statement of Transitivity.....	24
Figure 2.2 Mandler's Image Schemas of Motion.....	32
Figure 2.3 Mandler's Image Schema of Caused Motion.....	32
Figure 2.4 Mandler's Image Schema of Agency.....	33
Figure 2.5 Croft's Event Views.....	36
Figure 2.6 Kemmer's Event Schema.....	37
Figure 2.7 The Four Clause Types of Transitivity.....	63
Figure 3.1 Referential Specificity, Information Value, and Grammatical Relations.....	79
Figure 3.2 Quantitative Analysis of Clause Types with Percentages of Occurrence.....	103
Figure 3.3 Raw Count and Percentages Clause Types in Adult Narrative.....	103
Figure 3.4 Time Line and Clause Types—raw score out of total/percentage in text.....	105
Figure 4.1 Topic/Subtopic.....	123
Figure 4.2 Topic/Subtopics Specified.....	124
Figure 4.3 Complete Topic/Subtopics of excerpt "Speech Acts".....	125

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Current models of transitivity have been based on the examination of isolated sentences or text taken almost exclusively from the genre of narrative. The result has been the confusion of transitivity with linguistic features particular to narrative. This confusion has found its way into both prototype models of transitivity and discourse-functional approaches. To ameliorate this situation, this project extended the investigation of transitivity into the genre of expository text. Narrative texts were first examined to determine what might properly be called "transitivity" and what was actually a linguistic property of narrative. Then, texts were examined to determine the function of transitivity in narrative. Finally, expository texts were examined to determine if first, the model proposed to account for the data in the investigation of narrative would extend to expository text and second, if transitivity functioned differently in expository text. A model of transitivity is proposed which better accounts for the surface realization of transitivity by limiting prototype effects to four sentence types found in English: the telic transitive, the atelic transitive, the dispersed transitive, and the intransitive or durative transitive. Second, a functional model is proposed which shows that in narrative, transitivity is a continuation device which contributes to the management of perspective; in expository text, transitivity is a transition device which creates bridges from one span of text to another. Overall, this study demonstrated that while

transitivity is indeed a grammatical system for the expression of events, its use as such is only exploited in those discourse types which turn on events. In non-event-driven discourse, transitivity gives way to alternative forms of grammatical realization. The principle of asymmetry guiding grammatical cognition motivates this difference. In discourse types skewed towards linear organization, linear structures such as event-driven transitivity dominate. In discourse types favoring non-linear organization, non-linear structures which realize situations and states dominate. This tendency seems well-encoded by the differences between transitivity and topic-comment structuring in English.

CHAPTER ONE

FUNCTIONAL AND DISCOURSE MODELS OF TRANSITIVITY

"Many words are subject to a distinction which is designated by different names and therefore not perceived as essentially the same wherever found, namely that of a word complete in itself (or used for the moment as such) and one completed by some addition, generally of a restrictive nature. Thus we have the complete verb in *he sings, he plays, he begins*; and the same verb followed by a complement in *he sings a song, he plays the piano, he begins work*. In this case it is usual to call the verb intransitive in one case and transitive in the other, while the complement is termed its object"

Jespersen, 1924, 88

1.1. Introduction

A fundamental assumption of functional grammarians is that the primary purpose of language is communication; therefore, the ultimate goal of studying language is the investigation into this relationship: "The theme unifying the various functional approaches is the belief that language must be studied in relation to its role in human communication. Language is thus viewed as a system of human communication..." (Foley and Van Valin, 1984:7).

One question which emerges from this perspective is: what is it that human beings use language to communicate? The functional response is "If one is concerned with the role of language in social interaction, then aspects of linguistic structure which serve to signal social as opposed to purely referential meaning share center stage with purely referential elements..." (Foley and Van Valin, 1984:9). Lambrecht puts it another way: "...certain formal properties of sentences cannot be fully understood without looking at the linguistic and extralinguistic contexts in which sentences have these properties are embedded." (Van Valin, 1993:2). Perhaps the finest statement for why functional insights are necessary to the study of language comes from Leonard Talmy, a cognitive scientist. Talmy (1988) states that one of the principal functions of structure is to provide conceptual coherence. For language this means grammar, which is the way of "...unifying contentful material within a single conceptual system and rendering it

manipulable--i.e., amenable to transmission, storage, and processing-- and that its absence would render content an intractable agglomeration" (Talmy, 1988:196).

"Unifying contentful material" at the sentence level, though, is insufficient; the result would be an intractable agglomeration of individual grammatical constructions. In order to achieve coherence through time (a factor critical to successful communication), the grammatical structures themselves must be organized. This is one function of discourse structure: the structural organization of grammatical constructions for the purpose of managing information flow through text and time. This study, too, will examine a structural system, transitivity, with respect not only to its referential meaning at the sentence level but to its communicative and contextual functions through time and text.

Transitivity has enjoyed a resurgence of interest in response to functional inquiry. There have been at least two major functions proposed for transitivity; first, the sentence-level coding of events (Langacker, 1990; Rice, 1987; Givón, 1993:vol.1) in which transitivity is described in terms of coding participants and action/event relationships; second, the discourse-level coding of grounding (Hopper and Thompson, 1980; DuBois, 1987; Givón, 1995) in which transitivity codes foregrounded information and manages information flow in connected texts. Both viewpoints use much of the same theoretical apparatus (energy flow, attention, framing, agency, etc.) though neither has been set vis-à-vis the other in a clearly explicated manner. Transitivity provides fertile ground for such an examination as it appears to extend to both "levels" of linguistic exploration: the local, particular grammatical instantiation of any referent scene and the connection of that instantiation with others of its kind. The explicit purpose of this study is to distill from the various claims made about transitivity what this relationship might be.

Theoretical approaches to transitivity can be roughly classified along three dimensions: verb-oriented, clause-oriented, and extra-clause oriented. In the first, transitivity is understood mainly as a property of verbs. In the second, it is a property of logical propositions or events. In the third, transitivity is a matter of perspective or speaker construal (though in practice, it is often difficult to separate semantics and pragmatics of the various approaches). Within each dimension, theorists employ a variety of devices to account for transitivity, and while

grammarians are obliged to give transitivity some mention because of its intimate link to clause structure, there is considerable variation in the degree of centrality accorded it.

1.2 M.A.K. Halliday

Before discussing each of the approaches above, some mention of M.A.K. Halliday must be made. Halliday (1967) started the serious discussion of transitivity in a three part work titled "Notes on Transitivity and Theme in English." While it is not within the scope of this study to review the whole work, Halliday's basic claims are adhered to in subsequent work (though he is not always explicitly cited).

For Halliday, transitivity was part of three systems whose point of origin is the matrix clause, that clause which contains the major predication of the sentence. (The centrality of predication as the starting point for linguistic discussion is still valid for many linguists: "Regardless of the type of discourse under consideration, the clauses which constitute the discourse are constructed around predications consisting of a predicate and its argument" (Foley and Van Valin, 1984:27).) In particular, the transitivity systems "...are concerned with the type of process expressed in the clause, with the participants in this process, animate and inanimate, and with various attributes and circumstances of the process and participants" (38). For Halliday, transitivity is the system which provides sets of options relating to "cognitive content, the linguistic representation of extralinguistic experience, whether...of the external world or of feelings, thoughts, perceptions" (Halliday, 1967b:198). As we will see, transitivity as a cognitive phenomenon is still a critical, definitive notion.

The basic types of processes Halliday proposes are directed and non-directed action, meaning activities which are directed or not directed towards producing a specific effect on a participant. The relationships among participants and processes are thus very important. The first relationship Halliday describes is that of the grammatical subject of the clause (for English, every clause must have a subject). The subject has one of two semantic roles, the actor (the one performing the action) and initiator (one who is energy source of the action). The grammatical object has one principal role, the goal of the action. Subjects and objects

participate in one of three types of clauses: operative, middle, and receptive. Six relationships emerge from crossing processes, participants, and clause types.

	operative	middle	receptive
directed	S actor she washed the clothes	S actor/goal she washed	S goal the clothes were washed
non-directed	S initiator he marched the prisoners	S initiator/actor the prisoners marched	S actor the prisoners were marched

Figure 1.1: Halliday's Six Categories of Clause Types

Halliday locates transitivity within the clause and in doing so returns to features of the clause as the organizing rubric for his discussion. Thus "subject as actor" or "subject as initiator" are unnecessary labels as they fall out naturally from directed and non-directed clause types: "Treatment in terms of clause types enables us to generalize by saying that there are in fact three distinct types of subject, or subject functions, determined by the transitivity systems; these could be labeled 'ergative', 'nominative' and 'accusative'" (Halliday, 1967a:46). Halliday distinguishes clause features, subject type, and participant role as follows.

Clause Feature	Subject Type	Participant Role
operative	ergative	actor (not goal) in directed; initiator (not actor) in non-directed
middle	nominative	actor/goal in directed; initiator/actor in non-directed
receptive	accusative	goal (not actor) in directed; actor (not initiator) in non-directed

The point so far critical to this study is the emergence of clause types in terms of transitivity resulting from the interactions between processes and participants. Halliday comes back to this point again and again throughout all three sections culminating in an argument for the linguistic uselessness of the binary opposition "transitive" versus "intransitive." In particular, Halliday points out the difficulty in ascribing verbs this characteristic (a "dictionary analysis") since so many verbs in English participate in clauses with and without goal participants. That is,

the presence of a goal participant is often not fully predictable from the meaning of the verb itself: "The potential distinction, in other words, between verbs which are inherently goal-directed and verbs which are not, is less useful as a generalization than the actual distinction between clauses which contain a goal, or rather (an important difference) a *feature of goal-directedness*, and those which do not" (Halliday, 1967c:182; emphasis added). This being the case, the opposition of transitive and intransitive is not useful for linguistic analysis. Instead, we should employ a full range of transitivity distinctions as associated with the process-participant relations within the clause.

Halliday's notion that there must be a scale of transitivity distinctions has emerged as one of the crucial arguments in current functional and discourse grammars. However, in unlikely contrast, the labels "transitive" and "intransitive" have also remained, confusing the study of transitivity considerably. One of the principal tasks of this study is to clarify such confusion, and this point will be taken to task at length in Chapter Two.

The second insight of Halliday's which can be found throughout the literature and which is also critical to this study is the notion "goal-directedness." Evidence for goal-directedness as the primary semantic relationship in transitivity is found in both discourse studies (such as DuBois, 1987) and cognitive studies (Rice, 1987). As such, it enjoys considerable elaboration in Chapter Two.

Finally, Halliday's contention that the clause is the proper domain of transitivity has also emerged as fundamental. This notion is taken up briefly in the following discussion and is elaborated upon in Chapter Two.

1.3 Approaches to Transitivity

There are three primary theoretical approaches to transitivity: verb-oriented approaches in which the verb controls argument structure; clause-oriented studies in which transitivity is seen as a property of events realized at the clause level; and extra-clause oriented studies which offer pragmatic and discourse explanation of transitivity.

1.3.1 Verb-Oriented Theories of Transitivity

Verb-centered theories of transitivity are the most traditional and well-known. These construe transitivity as a matter of predicate argument structure identifying particularly the role of the verb and direct object: a verb is transitive if it requires a direct object or if there is a direct object present. Early theories didn't discriminate among types of verbs nor classify according to grammatical alternations; any verb which required some kind of object was transitive. Thus, a representative definition would be "a transitive verb denotes an action which passes over from the doer of the action to the object of it" but "an intransitive verb denotes a state or simple action without any reference to an object" (Curme, 1947: 22-23; emphasis added). Curme included reflexive verbs with the transitive, stating simply that the receiver and doer happen to be the same person. Other examples include *We make fudge*, *I remember Tony well*, or *She has no brothers and sisters* (Long, 1961 as cited in Rice, 1987). More recent theorists, though, do classify verbs according to type and recognize that different types correlate with different grammatical behaviors. Thus, we have action verbs, state verbs, process verbs, psychological verbs, reflexive verbs, verbs with cognate objects, etc., or the *aktionsart* classes: state, activity, achievement, and accomplishment (Vendler, 1967; Dowty, 1979; Van Valin, 1993). Moreover, the definition of transitivity vis-à-vis these verbs has developed so that only those that passivize are recognized as "fully" transitive, or in some cases, verbs are categorized as transitive and sub-categorized as also passivizable.

Nevertheless, the syntactic approach to transitivity is not limited to traditional grammarians. Indeed, this approach finds representation in both current formal and functional approaches. Configurational and structural approaches championed by Chomsky (1981) and most recently by Hale and Keyser (1985) define transitivity as a derivative of the syntactic or semantic configuration of the sentence. In the *Aspects* model, a verb is transitive because it subcategorizes for a noun phrase. A verb which has both transitive and intransitive instantiations would be marked exceptional. In the Government-Binding model, a verb is transitive because it binds its direct object via government relations. Although Hale and Keyser do allow extra-

propositional elements to influence the clause, the mapping between the components which link perspectives on an event (Lexical Conceptual Structure) with clausal instantiation (Lexical Structure) is unclear. And still, in all of these cases, the verb is the element responsible for transitivity; no appeal is made to other elements in the clause which may contribute. Yet semantic research as early as 1979 (Dowty) and still continuing (Hinrichs, 1985; Verkuyl, 1993) cites the importance of the NP in determining the syntactic behavior of the clause. A sentence with an NP object which is not specifically quantified does not perform the same as one which is: *Judith ate sandwiches/Judith ate the sandwiches --> ?Sandwiches were eaten by Judith/The sandwiches were eaten by Judith*. As the passive sentences show, when the NP is not quantified, passivizability suffers.

Van Valin (1993) also locates transitivity as a property of the verb, though he defines it as "semantic transitivity." In Role and Reference Grammar (hereafter, RRG), there are two types of transitivity recognized, macrorole transitivity and syntactic transitivity. The latter more or less follows the traditional definition above, whereas the former is specifically related to RRG. Macroroles are universal semantic structures which create the syntactic and semantic behavior of participants in discourse. Though most familiar when expressed as "agent" and "patient," Van Valin terms these roles "actor" and "undergoer" which subsume the more specific roles of agent and patient. There are at most two macroroles represented in any sentence, and as little as none. Further, it is the number of macroroles that has the most influence on syntactic behavior rather than the number of "syntactic" arguments. Consequently, transitivity "is understood in RRG as semantic transitivity, and is defined in terms of **the number of macroroles a verb takes**: 2=transitive, 1=intransitive, and 0= atransitive" (Van Valin, 1993:48; emphasis added). Thus, from the perspective of this study, regardless of the fact that Van Valin defines transitivity in terms of universal semantic roles, he still defines it as a property of the verb.

Even the brief examination above yields two major criticisms of strictly verb-oriented, or syntactic, approaches to transitivity. First, these approaches assume that transitivity is structurally derived from the verb, and do not recognize the contribution of the object NP. Second, because transitivity is a property of the verb, verbs with more than one instantiation

must be marked so in the lexicon, or have more than one representation in the lexicon. If indeed transitivity is something relevant to the entire clause, then at some point, all clauses must be included in the lexicon, seriously compromising the validity of maintaining it as a separate grammatical component (Rice, 1987:34). On the other hand, syntactic approaches to transitivity offer two valuable and time-honored insights. First, a direct object (of some sort) plays a role in determining transitivity. Second, syntactic behavior often provide a litmus test for transitivity. A sentence which passivizes is considered "fully" transitive. Sentences which marginally passivize are not "fully" transitive, though may be distinguished from intransitive sentences which do not have a direct object. So critical is this notion that Rice uses passivizability as the primary test of transitivity. These two points are the contributions made to the study of transitivity by researchers who employ essentially syntactic, or verb-based, definitions.

1.3.2 Clause-Oriented Theories of Transitivity

Clause-oriented approaches to transitivity are semantic in nature, and may be roughly divided into formal models which deal primarily with propositions, and cognitive models which deal with conceptual structures. As stated above, it is sometimes difficult to tease apart semantic models and discourse models of transitivity particularly since the authors of the former are often making claims for the latter based on the semantics in question.

1.3.2.1 Propositional models

Mél'Cûk (1993) discusses transitivity in relation to voice. For him, there are two "levels" of semantics at work in the clause: first, the "deep" level of semantic structure where propositional information works; second, the "surface" level of semantic structure where communicative effects are created. The **propositional meaning** is the "literal," actual, communicatively unmotivated representation of the event-- and, as is formally common, is "logically" read from the perspective of the verb (as a sort of basic-level meaning): V [x,y] (or whatever representation is used). Each of the NPs is termed an "actant": the subject or actor is the first actant and the object or undergoer is the second actant. **Communicative meaning**, however, is not "literal" or without organizational intent, but is the "level" of meaning representing the speaker's intent or organization or interpretation of the event (Givón's

"discourse-pragmatic" level). It is read, as is also common practice, from the actual or "surface" order of the lexical units.

Mél'Cûk defines changes in "transitivity" as affecting communicative meaning but not propositional meaning since voice is an inflectional category, but transitivity (his term) is NOT (though sometimes closely resembles it): "Just like voice, the transitivity achieves [communicative structure] through manipulation of COMMUNICATIVE SALIENCY of the verb's actants" (Mél'Cûk, 1993: 30; caps in original). Transitivity differs from voice in that voice can affect any actant, where transitivity only acts upon the second actant under the condition that its surface realization is as the "direct object". Furthermore, voice operates at the "deep" level of semantic structure while transitivity only acts at the surface level. Mél'Cûk follows Keenan and Comrie's 1977 hierarchy concluding that "all things being equal, the higher the syntactic rank of a sentence element, the higher its communicative salience...It is this trait that is exploited by the transitivity: it allows the speaker to modify, according to his communicative needs, the syntactic rank of the phrase whose communicative salience interests him" (30-1). Specifically, then, Mél'Cûk defines transitivity with the modification of the second actant (main object) without affecting propositional content. Detransitivity works the same way, but with a two-actant verb.

Givón (1993) also maintains different semantic levels in order to account for the communicative effects of different sentences. As with Mél'Cûk, he also calls them "deep" and "surface" structure, though ostensibly these are syntactic levels. The deep syntactic structure most closely corresponds to the semantic structure-- or propositional meaning -- of the sentence. In simple sentences (main, declarative, affirmative, active), the relationship between propositional meaning and surface syntactic structure is straightforward, hence semantically transparent. In most complex clauses, though, the surface structure is at odds with the propositional meaning, so much so that they are most easily described independently. In this case, the semantic structure of the sentence is opaque.

Givón justifies these two claims pragmatically. The reason why syntactic complexity results in propositional opacity is that a complex surface structure communicates "discourse-

pragmatic functions...discourse-pragmatics and propositional semantics are here in direct **competition** for coding resources" (1993:30). Thus, the overall structure of complex sentences is a communicative compromise between the distinct goals of communicating propositional information and discourse-pragmatic information.

Givón goes one step further and assigns each of the "parts" of a sentence to particular semantic functions. The word level encodes lexical meaning. The clause level encodes propositional information. The discourse level encodes textual coherence. As a result, transitivity acts across *all three levels* at once as instantiated at the level of the clause. Syntactically, verbs and clauses that have a direct object are transitive. Thus, at a word level, verbs which require direct objects are transitive, or clauses which have an overt direct object are transitive. Semantically, transitive clauses encode prototypical semantic features, each of which focuses on the subject of the verb (agentivity), object of the verb (affectedness), or construal of event itself (perfectivity). Prototypically, the subject should be a deliberately acting agent; the object should be concrete and visibly affected; the event should be bounded, terminated, fast-changing, and in real-time. Since there is a good deal of variation possible with these features, transitivity is potentially scalar in nature. The final dimension of transitivity is the discourse-pragmatic: "By 'pragmatic' one means here that the very same semantically-defined transitive event, coded by the very same combination of verb, agent and patient, may be rendered from more than one perspective. By 'discourse' we mean the **discourse context** within which the semantically-transitive clause is embedded" (1993: 46).

For Givón, as for Měi'Cùk, transitivity acts on the "communicative" or discourse-pragmatic level of language. The "semantic" level which communicates propositional structure remains the same, but some rearrangement on the surface results in a change in perspective. Givón goes one step further by adding the notion of *prototypical* semantic features. Semantically, it is not the mere presence of subject and object which are sufficient, but a particular kind of subject and object together with a particular kind of event. The prototypicality of transitive events has been excellently investigated by Sally Ann Rice in her 1987 dissertation. Before discussing Rice, though, a brief look at Hopper and Thompson (1980) is in order. It is

with this paper that transitivity as a complex and crucial grammatical structure re-entered linguistic theory in full force.

1.3.2.2 Hopper and Thompson (1980)

Most studies of transitivity are intended to explain either transitive/intransitive classifications or active/passive alternations. A scalar approach, introduced in 1980 by Hopper and Thompson, paved the way for an alternative understanding based on degrees of transitivity rather than binary distinctions. In their approach, a clause could be high or low in transitivity depending on the number and type (high/low) of prototypical semantic features it possessed. They proposed more than just the three features distilled by Givón. In short, there are several features pertinent to actions and objects and one feature critical to subjects. Each has a high and low value. As the low value is simply the inverse of the high, I will only list the high values. Of course, the first feature is that the ideal transitive clause should have two participants. The ideal subject is high in potency. The ideal action is kinetic, telic, punctual, volitional, affirmative, and real. The ideal object is totally affected and highly individuated. Individuation has properties as well: proper, human/animate, concrete, singular, countable, and referential/definite. Hopper and Thompson understand these features to be the component parts which make up the "traditional" semantic notion of transitivity: "...[the] carrying over or transferring [of] an action from one participant to another" (1980:253).

Hopper and Thompson also specify that languages vary according to which features (or clusters of features) are critical to changes in transitivity. Further, they propose a relationship between transitivity and grounding, claiming that clauses high in transitivity are also foregrounded events in narrative. Several language specific studies emerged (see Hopper and Thompson, *Syntax and Semantics*, 1982) which corroborated their claims. However, two difficulties with their work have been pointed out. First, transitivity and grounding do not have an absolute relationship and it may be necessary to refine which aspects of narrative are actually related to transitivity, supposing that such a relationship indeed exists (Kálmár, 1982). Second, the semantic features proposed do not necessarily covary consistently or correlate with transitivity alternations such as passive, nor must they be morphological in nature (Rice, 1987).

There is also language-specific evidence that morphological indicators of transitivity may not correspond to particular features, but simply indicate overall changes in transitivity (Kibrik, 1993). Nevertheless, Hopper and Thompson opened the door to a more sophisticated notion of transitivity, and firmly established the relevance of both semantic and pragmatic factors to its study.

1.3.3.3 Cognitive models

For Rice, transitivity is ultimately "...a linguistic device optionally employed by a speaker to conceptualize and organize the actions of entities in the world in order to convey a certain attitude about an overall event to someone else" (1987:5). As with most theorists, she finds transitivity a semantic matter with discourse-pragmatic functions. However, she firmly places herself within a cognitive school of linguistics which takes the work on prototype theory by Rosch quite seriously (see Lakoff, 1987):

In what is increasingly becoming the accepted view, categories are assumed to be organized around prototypical or canonical instances. Less canonical instances extend or radiate outwards from this prototypical center. In fact, categories may have several centers or may be able to sustain several prototypical instances. Furthermore, the creation of categories is understood to be a dynamic process and one that grows out of contact and interaction by a human with individual members of a category. Naturally, in the developing infant, physical objects will be the first to be encountered, recognized, and categorized. Over time, however, abstract entities like linguistic forms and even events will be experienced, assessed, and categorized in relation to some prototype or prototypes, which might enjoy either experiential primacy, superior frequency or perceptual salience, a clear utility, or higher resemblance relative to other members of the category (Rice, 1987:4).

Rice is an "extreme" cognitivist, insofar as she understands the conceptual categories she investigates as primarily non-linguistic, though they may be manifested in a linguistic form. My view is somewhat more moderate. While I agree that conceptual categories do underlie much of language acquisition (the research into conceptual categories throughout language is quite convincing; see Vandeloise, 1984; Herskovitz, 1989; Johnson, 1987, etc.) I also hold that at some point in the acquisition process, critical mass attains and language becomes a system acting on its own. It is a cognitive system, yes, but also has its own rules, structures, purposes,

functions, and forms which are very much *linguistic* in nature. Nevertheless, Rice's line of reasoning has led to significant insights into the nature of transitivity.

The prototypical transitive event, according to Rice, has many of the same characteristics as mentioned above: the activity is unilateral, thus the entities are in an asymmetrical relationship; contact between the entities is important; the second entity is affected by the first; and the entities are distinct from one another, their locale or setting, and from the speaker/conceptualizer. However, transitivity is as much a function of the describer's interpretation of the event as it is the content of the event being described. It is this observation that accounts for metaphoric extension from the realm of the physical as well as variability in speakers' acceptance of passives. It is the first point which I find particularly significant.

In Rice's cognitive model, transitivity is prototypically a dynamic event in which the participants are in an asymmetrical relationship and some change to the "object" is due to an action/effect which traveled along some kind of directional path from the first participant to the second. Thus, conceptually, several factors are crucial. First, the two participants are in an asymmetrical relationship; in other words, one participant must have the means to affect the other or one participant must have the capacity to be affected. Second, the action must be kinetic and/or forceful. Third, there must be some kind of path construed between the participants, even if the activity itself takes place instantaneously. Fourth, the receiver of the action must be affected in some way, though this can cover a wide range of possibilities, including change of state, change of location, etc. Of course, the change itself may be construed from experience. In the well-worn example, *John hit Bill*, the change to Bill is not made obvious in the sentence but construed from our experience with the world.

In the cognitivist model, reality is **constructed**, paving the way for important links between language and cognition. One of these links is metaphoric extension from "bodily images" (Johnson, 1987) to non-physical domains. Rice brilliantly makes this point for transitivity in mental domains and communicative or interpersonal domains. That is, for each of the primary domains in which we act -- physical, mental, social -- there are prototypical transitive

events which make use of the above semantic components (though inequally). Her examples serve to demonstrate the most typical aspects of each event.

In the physical world, *John deliberately kicked the sleeping poodle*, represents two maximally distinct participants in a single event in which one participant is active and powerful and the other is passive and defenseless. There is forceful contact which travels along a path designated by the physics and geometry of the body in one direction. The dog is presumably both awakened and injured, inducing both an internal and external change of state.

In the mental domain, Rice uses the following examples: *Eileen heard the gunfire*, *Steve despises Christmas*, *John solved the equation*. In each, there is at least one active, animate participant, but no restrictions on the type of passive participants. Further, each of the active participants acts on an entity external to itself. The contact is inferred as a function of the active participant and the event in question. However, the change that takes place is internal to the active participant rather than the passive participant; the nature of gunfire, Christmas, and equations does not change. Thus, in mental domains, the path is understood to "circle back" to the active participant. This is really not as odd a relationship as it first seems if we consider how we ascribe information to participants. In *Eileen heard gunfire*/*Gunfire was heard by Eileen*, the state of our knowledge about Eileen has changed, just as the state of our knowledge about the poodle changed in the example above. In mental domains, there is still change and still two distinct participants, even though the relationships among them differ somewhat.

In the social domain, Rice cites *The policeman questioned Bill*. Again, there are two participants, and while both are human and animate, their distinctiveness rises out of authority relations. The action is presumably goal-directed; the questions travel a "path" from the policeman to Bill, not the other way around. A number of possible emotional or mental changes can be inferred for Bill, from fear and nervousness, to sweating, to silence. Rice also makes the point that contact and directedness are important semantic properties of social events, and her investigation into verb and preposition combinations resulting in transitive events contains a high number of social events.

The strengths of the semantic theories of transitivity include a commitment to finding coherence underlying apparently disparate examples, and a careful attention to details that systematically distinguish different types of meaning. While I don't necessarily accept the syntactic distinction of deep and surface levels, theoretically there is a need to distinguish some kind of propositional meaning from discourse-pragmatic meaning. Nor do I accept prototype theory outright, though it is convenient to our discussion to use it as a possible model. This model will be taken up with greater diligence in Chapter Two. Nevertheless, Rice's careful explication of transitivity in English using both canonical and marginal examples is compelling. The primary strength of Givón and Rice is their commitment to a view of transitivity as a single dynamic entity with a complex of components versus a pick-and-choose list approach. The notion that structurally, transitivity has both semantic and discourse-pragmatic components, and functionally, it serves to manipulate perspectives on a scene, has profoundly influenced my own understanding and is foundational to this paper.

1.3.3 Extra-Clause Oriented Theories of Transitivity

Extra-clause oriented theories of transitivity focus on the level of discourse. These theories of transitivity begin with the notion of construal of an event and end with the notion of information structuring in a text. There are two levels at which an event can be construed. First, the clause-level, in which the structure of the individual clause encodes the speaker's construal of a particular event. Second, the discourse-level, where the structure of an individual clause is construed relative to other events in the text. Rice deals primarily with the first of these in her dissertation: the particular ways a speaker represents a particular event vis-à-vis the event and the conceptual structures the speaker has access to. Givón makes use of both in his model. First, there is the propositional structure of the event which does not change. Second, there is the particular construal of the event relative to the speaker's intentions and contextual environment. The second notion is also what Hopper and Thompson were discussing when they claimed that highly transitive clauses encode foregrounded events in narrative. (In fact, this is not strictly the case. Rather, highly transitive events typically correlate with temporally-grounded

events in a narrative; those actions which drive the story forward through time and require both an agent and patient of some kind.)

The pragmatic side of transitivity is the least explored, as the relative paucity of explanation given by Givón attests. However, there are some tantalizing possibilities offered in various accounts of the relationships between discourse and grammar. DuBois (1987) discusses the statistical correlations between clause-type (transitive/ intransitive with lexically specified arguments) and information structuring/flow (particularly the introduction of new participants) as they relate to ergative patterns in grammar. There was an overwhelming tendency in his transcripts of narrative discourse for any clause, intransitive or transitive, to have only a single lexical argument fully specified (only 2.8% of transitive clauses had both arguments lexically specified, representing just five sentences in the data). His conclusion was that ergative patterning in discourse forms the basis of ergative patterning of grammatical phenomenon.

DuBois works within Dixon's (1972) semantic division of participant roles, intended to allow cross-theoretical discussion of ergative/absolutive and nominative/accusative languages. Dixon discriminates three basic semantic roles as they relate to the predicate: "A" designating the subject/actor of a transitive (two participant) clause; "O" designating the object/goal of a transitive (two participant) clause; and "S" designating the single participant of an intransitive (one participant) clause. Thus, in nominative/accusative languages, "A/S" pattern together, meaning that the actor/subject of a transitive clause and single participant of an intransitive clause take the same verbal morphology (nominative). It is the object/goal relationship which takes accusative marking. On the other hand, in ergative/absolutive languages, it is the single participant of an intransitive clause and object/goal of a transitive which pattern together and take absolutive morphology, while the actor/subject of a transitive clause takes ergative marking.

DuBois maintains that part of discourse management is a restriction against using more than one lexical specification per clause. When broken down according to ergative/absolutive cases, only 6.1% of 619 lexically specified arguments occurred in the "A" position--the vast majority of cases were "S" and "O". Thus information flow was managed in terms of a constraint against using lexical transitive subjects. DuBois interprets this pragmatically as meaning only

one new argument can be introduced at a time (this notion is also found in Givón, 1990a/b and Chafe, 1994, though both authors suggested as much in earlier publications). Further, the new argument is preferably an intransitive subject or transitive object. In terms of the discourse basis of ergativity, DuBois concludes: "It appears, then, that speakers often select an intransitive verb, not necessarily for its conceptual or semantic one-placeness, but for its compatibility with constraints on information flow" (1987:831). DuBois also found evidence for the same type of patterning in nominative/accusative languages; my own work in Cree suggests that statistically, clause type and full lexical specification of NPs correlates with function in narrative discourse.

Yet another discourse perspective on transitivity is presented by Berman and Slobin (1994). They conducted a cross-generational, cross-linguistic study of the acquisition of narrative competence. Briefly, Berman and Slobin propose that in a skillful narrative, events are not presented in a simple linear chain of successive occurrences in time and space. Rather, events are "packaged" into hierarchical constructions. Part of that packaging arises from a filtering process whereby speakers construe events over four dimensions: topic, locus of control and effect, event view (Cause, Become, State), and degree of agency (1994:519).

Topic represents the speaker's choice of protagonist, the participant from whose viewpoint the narrative is constructed or who the listener is intended to have "empathy" for (in Kuno's sense of the term). Loci of control and effect represents the energy source of the event which may or may not be the same as the topic. In a passive sentence, for instance, with an overt "by-phrase," the affected participant is the topic but the energy source for the event is also present.

The selection of event view is the speaker's means of representing the semantic nature of the event-as-process. A Cause-View represents one participant causing a change of state in another. A Become-View represents a change of state without mention of a causative force. A State-View simply represents a state itself. These three views are strikingly similar to Halliday's three clause types, particularly as they interact with locus of control and effect.

Degree of Agency is the means by which the speaker represents the overall dynamism of the event: "...its dynamic and motivational loading, the extent of its consequences, etc."

(Berman and Slobin, 1994:519). Agency can be strengthened or weakened via choice of verb, choice of adverbs, and use of subordinate clauses. Berman and Slobin propose three levels of agency: high, mid, and low. Any particular level comes about via the other three aspects of filtering as well as voice and lexical options. In their treatment, though, the choices made when "filtering" an event for expression go beyond mere representation of the experiential event (as is the case with Halliday and Rice) and have encoding consequences beyond the level of the clause. For example, construing the following participants and event with different combinations of topic, locus, event view, and agency impacts the content of the next clause.

Participants: dog, cat event: fast movement of one participant from the other

(1) Topic: dog

Locus of control and effect: dog

Event View: Cause-View

Agency: high

(2) Topic: dog

Locus of control and effect: cat

Event View: Become-View

Agency: mid

Discourse One: The dog attacked the cat, barking furiously his right to sit on that bit of sidewalk next to his house. The cat swiped his nose once with her paw, and that was the end of that day's battle.

Discourse Two: The dog fled, nose scratched and bleeding. He had to reconsider battle strategy before challenging the feline next door again.

The impact on the second sentence of each is significant. When the dog is both topic and loci of control and effect, it left the cat as not only the affected participant but also the new information. The response of the cat is the next "logical" step in the discourse as it is this participant the listener has least information about and must know in order to make pragmatic sense of the following information. In Discourse Two, however, the cat is the controlling force but is not overtly mentioned, leaving the dog as a possible topic for the next predication.

We are thus brought full circle -- from Rice's compelling arguments for the conceptual basis for transitivity across physical, mental, and social domains, DuBois' evidence for the effects of discourse management on clause structure and Berman and Slobin's insights into the interplay from clause to clause -- to the original hypothesis that transitivity is not a unitary phenomenon but one which straddles the three principle levels of language structure--syntax, semantics, and discourse--for the purposes of communication. What remains to be done is a

thorough-going investigation into these interactions. While each of the above researchers has admirably investigated the particular side of the issue he or she is interested in, no one investigator has attempted an in-depth study of these at once, particularly as they attain beyond the genre of narrative. That is the purpose of this project: to investigate the various definitions of transitivity and particularly its use with the aim of determining what might properly be called "transitivity" and its functions. This work should be viewed with respect to emerging notions about discourse such as those laid out by Hopper and Thompson (1980), DuBois (1987), Berman and Slobin (1994) and Chafe (1994) which hold that the grammatical system itself is closely linked to discourse forces such as focus and topicality, and the structure of clauses is similarly linked to the needs of information structuring, cognitive processing, and communication. Thus the play of any clause is not only a matter of semantics and construal, but also constrained by the needs and forces of discourse and cognition.

1.3.4 Transitivity and Text

Because transitivity has implications across the semantic, syntactic, and discourse-pragmatic levels of language, it has been the subject of several discourse studies, as the section entitled "Extra-clause oriented" demonstrates. The overwhelming majority of these studies have taken place within the genre of narrative, both spoken and written. Initially, this seems like a good strategy. Narrative is an intuitively well-understood discourse type, easily recognized and produced by speakers, with a few clear linguistic structures associated with it; namely, narrative is past tense, action oriented, and proceeds from beginning to end chronologically.

Nevertheless, while linguistics has long been cautioned by practitioners such as Longacre (1977, 1983) to be mindful of the connections between notional type and surface structure, this has rarely been the case. While linguists do take pains to mention the notional type they are culling data from, there is left implicit the assumption that the language itself— the grammatical or semantic structures in question— are wholly distinct from the environment within which they are occurring. Even discourse linguists who devote their time to studying these connections seem to carry this same hidden belief: while genre has an effect, it is more of a loose framework around the language within; it has no real impact on structure itself. In other

words, a given grammatical or semantic construction has structure and function which is defining, and the structure and function hold regardless of the text type in which they are participating.

Of course, not every linguist holds this assumption. DuBois' (1987) study discussed in the previous section is an excellent counter-example. His work on the discourse basis of ergativity specifically comes to the conclusion that there are discourse preferences for syntactic structures. These preferences act independently of the semantics of syntactic structures by exerting selectional pressures for the purposes of cognitive processing. In other words, there are "top down" linguistic forces at work which are every bit as powerful as the "bottom up" patterns we are accustomed to assuming for linguistic structure.

Thus, a careful distinction must be drawn between the structure and function of any grammatical construction and the notional type in which that structure occurs. Further, attention must be paid to teasing apart the linguistic features characterizing a discourse type which may be having an effect on surface structure. This has not been done for transitivity and narrative. Many of the proposals for the structure and function of transitivity have been made without sufficient regard to the effects of narrative. This difficulty will be addressed in three ways in this project. First, a "cumulative" structure/function definition of transitivity will be proposed followed by a point-by-point investigation of the validity of each of the claims. Second, the linguistic features of narrative will be investigated and subtracted from the definition of transitivity where that seems appropriate. Third, the resulting "definition" of transitivity will be taken into both narrative and expository texts for refinement, and to investigate the function(s) of transitivity in these two contrasting text types.

1.4 Overview of Project

A couple of assumptions central to this project should be expressed at this point. Of the various linguistic meta-approaches to language, I fall in the camp of the "interactionist." This is my own designation and includes perspectives such as those expressed by DuBois (1985a:363) that "grammars code best what speakers do most" and by Elizabeth Bates (pc) that language as a system is characterized by the mapping of a "hyper rich dimensional system" (meaning) onto a

"low dimension communicative apparatus" (grammar) resulting in a dynamic system wherein the vast, fluid world of meaning must be relayed via a comparatively rigid means of communication. Talmy (1994) as mentioned earlier says basically the same thing: language serves the needs of communication but is constrained by the cognitive requirements of comprehensibility.

For these reasons, I reject models of grammar which propose various sorts of endlessly embedded continua, imposed upon one another, and resulting via this imposition in a coherent set of constructions with surface realizations of clauses and phrases. This is the "feel" of many purely cognitive or purely discourse models of grammar. Instead, I side with likes of Bates, Talmy, Givón, and Slobin who envision grammar as the dynamic system which emerges from the tension of two distinct forces in linguistic communication: the richness of meaning as expressed through the constraints of cognition.

Thus, my model of transitivity by and large rejects the prototype models of transitivity currently in favor (Hopper and Thompson, 1980; Rice, 1987; Givón, 1995). Instead, I propose a model of transitivity which has its base in the semantic-cognitive system but is realized syntactically through four different clause types: telic transitive, atelic transitive, dispersed transitive, and intransitive (or durative transitive). These clause types are particular to English in keeping with Slobin's proposition that different languages select different "aspects of the mental image" to be realized grammatically (1996:72). In Slobin's words (1996:76):

...The expression of experience in linguistic terms constitutes **thinking for speaking** — a special form of thought that is mobilized for communication. Whatever effects grammar may or may not have outside the act of speaking, the sort of mental activity that goes on while formulating utterances is not trivial or obvious, and deserves our attention. We encounter the contents of the mind in a special way when they are being accessed for **use**. That is, the activity of thinking takes on a particular quality when it is employed in the activity of speaking. In the evanescent time frame of constructing utterances in discourse one fits one's thoughts into available linguistic frames. 'Thinking for speaking' involves picking those characteristics of objects and events that (a) fit some conceptualization of the event, and (b) are readily encodable in the [native] language

This perspective does not contradict Rice's claim that "...a verb/proposition/event is not so much transitive as it is considered transitive by the speaker/conceptualizer"; rather, it constrains this claim by proposing that transitivity has language-specific surface realizations according to the

needs of communicative coherence. The model of transitivity will be taken up primarily in Chapter Two.

Functionally, the two principle claims made for transitivity is that it manages perspective on participants and events and signals foregrounded information. My own research confirms the first conclusion and disconfirms the second. Transitivity does indeed manage participants and events in narrative, but the second claim is more an accident of the interaction of transitivity and narrative than a quality of transitivity itself. These issues will be introduced in Chapter Two and developed in Chapter Three.

When transitivity is explored in expository text, our assumptions about the centrality of function as part of a definition of a structure is challenged. Since expository text does not employ participants and events as its main notional structures, transitivity plays a different role than in narrative. In particular, transitivity is employed functionally at textual points of transition, signaling movement from one major part of the text to another as well as textual material which is off the main argument line. This subject is the task of Chapter Four.

The final chapter concludes the project by examining the role of transitivity in narrative and expository texts and hypothesizing how these results either support or challenge traditional assumptions about the interaction of notional type, surface structures, and grammar as a system.

CHAPTER TWO TOWARDS A WORKING DEFINITION OF TRANSITIVITY

2.1 Introduction to the Problem

This project assumes that grammar is the system which emerges to mediate the rich world of internal representation with the particular cognitive and production constraints of communication. The purpose of this chapter is to propose a working—and workable—definition of transitivity. Presently, there is a wide range of possibilities in the literature which need to be evaluated, amended, salvaged, or discarded. Major claims frequently made for transitivity which need particular attention include: first, transitivity is or has a structural prototype; second, there are degrees of transitivity; third, the passive construction is the only legitimate test for transitivity; fourth, transitivity is conceptual, not linguistic; fifth, because transitivity has structure, that structure is universal in nature; sixth, transitivity functions to foreground information in texts. A more complete compilation of the extensive claims made for transitivity can be found in the “Statement of Transitivity” on the following page. This statement will provide an organizational blueprint for the initial discussion.

A second issue must be dealt with as well. Most linguistic research which takes context into account has been done within the genre of narrative. Transitivity is no exception; it has been investigated exclusively through written or oral narrative. This has had some unfortunate consequences for understanding the function of transitivity since narrative itself is a genre marked by unique configurations of linguistic structure (see Fleischmann, 1990). In order to understand what is happening with transitivity at a discourse level, the linguistic structure of narrative—in particular, tense and aspect—must be separated from whatever it is that transitivity is doing. Once this has been accomplished, it will be much simpler to investigate the function of transitivity in both narrative and non-narrative texts. The bulk of this task is taken up in Chapter Three, but the work is begun in this chapter.

We begin with the "Statement of Transitivity" as the starting point of our investigation into what properly belongs to transitivity and what properly belongs to narrative. Excerpts will be used where appropriate to validate points although the bulk of Chapter Two is dedicated to transitivity at the level of the clause, i.e., the syntactic and semantic claims. The discourse and functional nature of transitivity will be taken up primarily in Chapter Three and will include more extensive use of texts.

Figure 2.1: Statement of Transitivity

Structure-Function Definition: Transitivity is a complex phenomenon involving syntactic, semantic, and pragmatic components which functions to conceptualize and organize events and participants in the world so that their relationships to one another may be communicated according to the attitudes and intentions of the speaker in a manner which is cognitively coherent and manageable, and which is grammatically verified by the availability of the passive form. The above are understood to be (possibly) prototypical in nature, thus scalar and capable of metaphoric extension as well.

Structural Components

Syntactic— There is one syntactic component to transitivity and a necessary property of that component, syntactic manipulation is the principal grammatical test for the fully transitive statement

- (i) there must be at least two participants structurally bound by the same clause, the two participants must be distinct entities "in the world"
- (ii) the availability of the passive alternation is the strongest grammatical test for transitivity

Semantic— There are four semantic relationships identified for transitivity

- (i) Asymmetry — the participants must be in an asymmetrical relationship generally due to the unidirectional nature of the action, but sometimes falling out from the inherent nature of the participants themselves or their relationship
- (ii) Agentivity — one of the participants is a deliberately acting agent, capable of instigating the action or is the source of the action
- (iii) Affectedness — one of the participants must undergo some kind of change or experience some kind of effect due to the action, this change or effect may be understood from world knowledge or inherent to the meaning of the action itself
- (iv) Perfectivity — the action should be bounded, terminated, fast-changing, and take place in real time

Discourse-Pragmatic— There is one principal discourse component to transitivity:

- (i) Constraint of information — there must be a limited number of participants and forms of expression of those participants

Functional Claims

There are four proposed functions of transitivity.

- (1) Propositional meaning — the semantic components of the transitive clause serve to create the basic, propositional, non-communicatively influenced meaning of the expression
- (2) Perspective — transitivity permits the language user to express a given situation, action, or event from more than one perspective in order to create the desired communicative effect
- (3) Management of Information Flow — transitivity provides the site over which participant relationships are arrayed in order to constrain the introduction of new information during communication, in part maintaining and managing communicative coherence
- (4) Grounding — high or prototypical transitive clauses correlate with foregrounded information

2.2 Syntax

The claim for syntax is that there must be at least two participants who are distinct in the world (in other words, are not co-extensive) and bound structurally within the same clause. The necessity of two participants is a claim made by nearly all linguists regarding transitivity, even those who propose a scalar model. Hopper and Thompson (1980) do make the strongest attempt at a scalar model, but to a great extent still regard High transitivity with two participants as the prototypical and basic level against which less transitive statements should be measured. If transitivity is to be a useful designation, then the simple binary opposition of transitive/intransitive where the former is "transitivity" (in which two participants is a necessary but not sufficient condition) and the latter is not "transitivity" (because it is not *transitive*) needs amending. This is not simply a matter of eliminating terminological confusion but of creating theoretical clarity. There are three options possible: first, keep the term "transitivity" for the theoretical construct and use other terms for the binary opposition itself, such as valency (if, indeed, the binary opposition holds true); second, use some other term for the theoretical construct, perhaps "argument structure" and keep the terms transitive and intransitive (same caveat as above); third, keep the term "transitivity" for the theoretical construct and reform our understanding of that construct so that it is useful for linguistic analysis. Option three is the choice of this study.

Initially, I will follow Rice, Hopper and Thompson, Givón, Halliday, and Berman and Slobin in proposing that transitivity is a scalar phenomenon. However, I will take this to its logical extreme by avoiding the traditional notion that transitive statements must have two participants, claiming rather that if there are degrees of transitivity, then the number and nature of participants is simply one component. In order to substantiate this claim, first the "nature" of the participants must be made clear (as it turns out, "co-extensive" is more a matter of construal than strict pragmatic or logical "in the worldness") as well as the "nature" of the activity (to be discussed further in the semantics section). Second, what is meant by "scalar" or "degrees" must also be made clear and useful.

2.2.1 Grammatical Behavior

In order for "degree of transitivity" to be more than intuitively convenient, evidence must be found in the grammatical behavior of languages themselves. For an issue such as transitivity and the broad claims made for it, the grammatical behavior should be found not only at the level of the clause, but also at the level of discourse. The first question is what counts as the clause-level behavior of transitivity?

In English, the attraction of the active-passive alternation is the clarity and economy of their connection. The passive is so obviously a structure which "re-expresses" an event by shifting the topic-focus relationships (a discourse phenomenon) while maintaining role relationships (a semantic phenomenon). The popularity of the passive as a teaching tool and starting place is the simplicity and elegance of the transformation. Are there other structures equally instructive? For example, what distinguishes the passive from the middle voice? Simply speaking, there is a single "fact" with grammatical consequences: in the middle, the force or effector role is **not** available syntactically which opens the door for alternative expressions not allowed by the passive.

- (1) Olaf opened the door/The door was opened (by Olaf)
- (2) The door opened/ *The door opened by Olaf
- (3) ?Olaf opened the door with a creak/?The door was creaked open (*by Olaf)
- (4) The door opened with a creak/The door creaked open
- (5) Olaf_i opened his_i door/His_i door was opened (*by Olaf_i)
- (6) His door opened/Olaf's door opened
- (7) His door creaked open/Olaf's door creaked open

In these sentences, the middle construction makes it possible to incorporate manner into the verb (a productive process in English), whereas the passive partially or completely blocks this movement. That is, in a passive sentence, although the affected participant is the subject, it is still not the source or effector of the activity (the original roles are maintained). Manner cannot be attributed to the verb when the locus of force is either implied or stated in the adjunct. In other words, the conceptual iconicity in an active "transitive" sentence is violated in the passive but preserved in the middle. Only when the single overt participant is both the topic of discourse and the locus of force of the verb can manner be incorporated. In the middle voice, this is the case: the single participant is the only participant, and is the discourse topic, grammatical

subject, and locus of force. In many languages, the middle is marked by a distinctive case, such as absolutive, further distinguishing it from "normal" subject-verb-object relationships.

The possessive also has a powerful effect grammatically. Although there appear to be two distinct entities in the world (certainly Olaf and the door are not one and the same thing), they are not construed as distinct, as evidenced by the non-availability of the passive. In the middle voice, though, there is a single effector/affected, and the possessive does not interfere with the predication options available to it.

Thus, it can be argued that in English, there are both syntactic and discourse consequences when **the relationship between participant/s and event is differently construed**. Simply shifting topic-focus relationships does not induce a change in participant-event relationships. Rather, there are grammatical constructions which instantiate changes in these relationships which in turn have consequences for other levels of grammar. Therefore, it is theoretically palatable to label participant-event relationships differently, and this "label" is called "transitivity."

As the examples above show, it is not merely the number of participants bound by the predicate, but the nature of that relationship which affects grammar. On the other hand, the passive alternation is only available to clauses with two distinctly construed participants. Hence the number of participants is not irrelevant, either. If the statement bolded above is reasonable, then it's necessary not to limit the discussion of transitivity to only those sentences with two participants. An alternative must be found which accounts for participant-event relationships, includes a place for two-participant constructions, but is not limited to them. Immediately, as we shall see, an appeal has to be made to semantics.

2.3 The Semantics of Transitivity

As the brief discussion of transitivity and syntax shows, "syntax" is not the crux of the problem. Semantics, on the other hand, is quite the opposite. There is a bewildering array of semantic explanations of transitivity traversing a number of theoretical approaches. For some theories, such as Role and Reference Grammar (Van Valin, 1993), transitivity is a straight-

forward matter of semantic macro-roles and not that complicated a matter. For the cognitive camps, however, transitivity is--or is related to--conceptual structure and is quite complex. Currently, cognitive models of transitivity are producing considerable results so it is to these models our investigation turns.

There are, by and large, two principle processes currently competing for attention in cognitive theory: prototype theory and implicature. Prototype theory (Rosch 1973, 1975, 1977, 1978 and 1981; Lakoff, 1987) proposes that categories are organized around prototypical or canonical instances. In some cases, the canonical example itself is the prototypical image against which categorization is made. In other cases, characteristics are abstracted from canonical members and it is these characteristics which form the prototype. Implicature (Grice, 1975) is a different process altogether. Implicature is not concerned with the organization of categories but with the processing of information. This is "linguistic cognition" (Givón, 1995) which takes place between overt linguistic information (such as the sentence) and covert information (such as the knowledge brought to that sentence by speaker and hearer). Implicature may be defined as "stable linguistic inferencing," a linguistic-cognitive process which is part of normal linguistic functioning.

Prototype theory has enjoyed quite a bit of attention and many theorists subscribe to prototype analyses for an enormous range of linguistic behavior. Implicature is less used, yet is probably the more appropriate choice for much of what passes for discourse-level and pragmatic processes. A closer look needs to be aimed at some of the uses of prototype theory. For example, does it really make sense to say there is a prototypical sentence type? A basic model against which all sentences are created and judged? The arguments for such are based on cognitive models, such as Lakoff's "idealized cognitive models," and these kinds of highly abstract grammatical schemas are generally supported by those who study the development of the human conceptual system (Mandler, 1991). However, there are equally compelling reasons to believe that at a certain point of complexity--i.e. discourse-- prototype theory is an insufficient or an inappropriate account for linguistic behavior; it is not that prototype theory is wrong, but rather that it is applied with too broad a brush stroke.

2.3.1 The Active, Affirmative, Declarative Prototype

Givón (1995) proposes quite forcefully that there are three dimensions essential to the semantics of transitivity corresponding to the "prototypical transitive event" (76):

Agent: The prototypical transitive clause involves a volitional, controlling, actively-initiating agent who is responsible for the event, thus its **salient cause**.

Patient: The prototypical transitive event involves a non-volitional, inactive non-controlling patient who registers the event's changes-of-state, thus its most **salient effect**.

Verbal Modality: The verb of the prototypical transitive clause codes an event that is perfective (non-durative), sequential (non-perfect) and realis (non-hypothetical). The prototypical transitive event is thus fast-paced, completed, real, and perceptually-cognitively salient.

Givón explicitly justifies his definition by appealing to methodology: "... one studies the pragmatics of voice while holding the transitive semantic frame more or less constant...For this reason, I will exclude from the discussion here a group of de-transitive voice constructions that, in one way or another, *tamper with the semantic core of the transitive event*" (76, emphasis added). There are several problems with the above statements which will first be noted, then taken up one by one. The discussion below intends to investigate more closely the claims made for a semantic-transitive core, one which Givón gives the most clear and concise expression to and to which most researchers in this area appear to subscribe.

The first difficulty with this approach is not the methodology itself but the foundation upon which the method is based: that there is such a thing as a single, unitary transitive prototype against which ALL clauses not exhibiting the semantic prototype should be assessed. It is, in essence, a non-enlightening definition, claiming that all sentences which are not "perfectly" transitive are not so because they do not have the defining components of the transitive event which make for prototypical transitivity. At issue here is not whether voice alternations exist, or whether they can be compared, but whether all should be related back to the same semantic core.

The second difficulty is in the labeling of "agent" and "patient" for most salient cause and effect. Cognitively, the most salient cause and effect may be quite distant from the

semantics normally associated with "agent" and "patient," namely that of a human agent and a non-human patient. As we will see, there is interesting evidence showing that "agent" is too strong a role to be at the core and "patient" has a cline of its own which affects grammatical behavior. Further, there is also evidence that the non-human patient, at least in English, participates in a unique structural pattern which should be included in the array of options accorded transitivity.

The third difficulty is actually comprised of many sub-difficulties relating to the notion of verbal modality. For the most part, these stem from the association of transitivity and narrative, even among researchers who simply wish to investigate the clause. That is, there is a close historical connection between the study of transitivity, the study of voice and modality, and the study of narrative. The result has been some blurring of the lines separating each. For example, there is relatively little evidence when sentences are studied in isolation that perfectivity is a necessary component to semantic transitivity. That is, relatively durative activities still enjoy many of the de-transitivizations that Givón discusses. However, *in context*, many such activities are grounds against which more punctual events occur. Second, the notion of "sequential" is also problematic since frequently the inherent semantics of a given event do not suggest definition as a *time*-bounded entity. Rather, sequentiality is inferred as a matter of temporal juncture between two events, suggesting instead that boundedness by time is an implicature. Finally, there is an array of data showing that the perceptual saliency of the transitive event is a function of two participants interacting, a relatively limited occurrence textually. In fact, the salience of any particular event is figured not by its number of participants but by the event itself relative to other events in context. This necessarily includes many events which are not transitive in the sense of having two participants.

2.3.2 The Transitive Prototype: One or Many?

Any discussion of a transitivity prototype necessarily begins with the distinction between event structure and transitivity. Event structure is a pre-linguistic cognitive structure representing a conceptual stage of processing whereby portions of the stream of experience are excerpted or "stamped out" into a particular sub-unit with particular characteristics. Event

structure is eventually expressed via the grammatical unit, the clause. But what characterizes event structure? What evidence indicates that it is pre-linguistic? And how does it relate to transitivity?

In part, the notion of event structure arises from the need to account for language acquisition. That is, at some point in the child's development, the non-linguistic world inside the head gets "mapped onto" a linguistic world through which it is expressed. Developmental linguists, such as Siobin (1972, 1982, 1994, 1996, 1997), have begun to address what kinds of concepts must be represented at the onset of language acquisition with regard to what actually is expressed in the early stages of speech. Mandler (1991) argues "Language is unlikely to be mapped *directly* onto sensorimotor schemas. There is a missing link: a conceptual system that has already done some of the work required for mapping to take place" (414). Specifically, she argues that it would be "extraordinarily difficult" for the child to make a leap from the continuous stream of physical data to the symbolic representational world of language. Some mediating system intervenes to parse "...the movement involved in picking up one object and placing it into another to the statement, 'The marble is put into the cup.' Some kind of conceptual summary of what is happening in this situation is needed; it is this conceptual summary that is mapped, rather than the sensorimotor schemas themselves" (414).

Mandler notes that the abstract schemas proposed by cognitive linguists such as Lakoff, Langacker, and Talmy represent the same kind of material that psychologists investigating the foundations of the human conceptual system also propose. First, she cites evidence that infants are able to parse the world into coherent bounded objects as early as 3 months old, if not sooner (415) and that they are able to encode the causal relationships into which objects enter as early as 4-6 months (416). She is careful to state that while the extent to which these accomplishments are perceptual versus conceptual is unclear, it is clear that the information is available to be operated on.

Mandler shows that the kinds of concepts which seem to be formed in infancy are well-represented by image-schema notions. Together with evidence from Siobin *inter alia* it is also clear that many of these notions apply directly to event schemas and their linguistic expression.

First, infants are able to distinguish objects that engage in "biological motion" from those that do not. They are also able to distinguish caused and non-caused motion. Mandler cites the work of Bertenthal, Proffitt, Kramer and Spetner (1987) and Leslie (1984), respectively for each of these points. Thus there is a sensorimotor capability of distinguishing motion which is self-caused from motion which is other-caused. She further argues that while the image-schema of PATH is indeed simple and basic, paths do not happen without starting points; hence one kind of image schema emerges for the notion "self-caused motion" designating the simple idea that an Endpoint does so from a point of origin outwards along a path. A second image-schema for animate motion characterizes the trajectory itself--when an Endpoint moves, it does so in a particular manner. The two schemas simply distinguish an Endpoint-oriented image of motion from a trajectory-oriented image of motion.



Figure 2.2: Mandler's Image Schemas of Motion

Finally, she (420) also notes that infants are "inordinately attracted by all moving objects, and of course, many of those are inanimate...Inanimate objects are those that begin motion only through the interaction of other objects; specifically, *they are caused to move*" [emphasis added]. Thus a third image-schema emerges outlining caused motion:

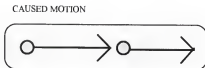


Figure 2.3: Mandler's Schema of Caused Motion

Mandler (420) introduces one more leap which brings us a step closer to what happens at the level of linguistic representation. She combines the schemas of animate motion and caused motion to produce a schema which she says accounts for the notion *agency* :

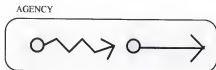


Figure 2.4: Mandler's Image Schema of Agency

This schema combines all the above aspects together. An animate Endpoint causes itself to move and in doing so, moves an second Endpoint. The result is a complex image-schema sensitive to both Endpoints of an event as well as the trajectory.

While Mandler admits that we do not know when such a conceptualization arises in infancy, she cites Leslie (1982,1984) which shows that infants between 4 and 7 months old show surprise responses when animate objects move inanimate objects without contact between the two while also showing no surprise when inanimate objects do so. In other words, by 7 months there appears to be evidence for some basic notion of agency as it relates to animate-inanimate interaction.

Linguistically, there is evidence that as children acquire language, they are sensitive to the above distinctions. Developmentally, the various parts of motion are among the first to be expressed linguistically. Slobin (1982) cites an example with the ergative language, Kaluli. In Kaluli, there is an ergative noun suffix which attaches only to agents of actions, that is actions where an agent acts upon another human or non-human and causes a change of state or location. The ergative suffix is attached to sentences such as *Mother is cooking* but not to sentences such as *Mother is sleeping*. Two remarkable facts occur developmentally. First, as early as 26 months old, the child consistently marks the ergative suffix in two word utterances, particularly with highly dynamic verbs such as *give*, *take*, *grab*, and *hit*. Second, the ergative suffix is never over-extended to the subjects of sentences such as *Mother is sleeping*.

On the other side of the grammatical fence, additional evidence is found in accusative languages. In Russian, for example, the accusative suffix attaches to any object in an affirmative sentence regardless of the type of action involved. Thus, "book" in *I read the book, I saw the book, I threw the book* all receive the same accusative inflection. If the inflection simply relates to the grammatical notion "object of activity", then it should be applied equally across all instances as it is being acquired. However, Siobin cites a study by Gvozdev (1949) which shows this is not the case. Children did not acquire the inflection equally, but applied it first to a particular subset of events, namely those involved in direct, physical action on things: *give, carry, put, throw*.

Siobin concludes that the Russian underextension makes the same point as the lack of Kaluli overextension: the child seems to be encoding aspects of a "prototypical event of object manipulation"(412):

It seems that the child does not begin with categories, such as 'actor,' or 'agent', looking for the linguistic expressions of such notions in his or her native language. What the child may begin with is much more limited and childlike ways of conceiving basic events and situations, at first matching grammatical expression to primary or basic event schemata [such as 'causal agent']...It is such prototypical events, rather than case categories, that seem to provide the initial conceptual framework for grammatical marking.

Thus there is linguistic evidence for the conceptual underpinnings of event structure and its subsequent linguistic expression. What I would like to point out, leading to the following point on the possible nature of these conceptual image-schemas, is that developmentally, both in terms of the infant studies and early language acquisition studies, it is not necessarily the whole of the event which is attended to, but one part of it. That is, the infants studies cited by Mandler and the acquisition studies analyzed by Siobin show sensitivity to the starting and endpoints of an event, as well as the path itself, *not just to the event as a whole*. Mandler even suggests that her schema of caused motion (the "prototypical transitive event" Siobin defines) is slightly more complex and therefore a slightly later conceptual creation. Developmentally, concepts of object permanence precede concepts of motion which precede concepts of agency. Thus it makes sense that humans have very early schemas for objects, then for objects in motion (both self-

and other-caused as Mandler suggests), then for objects which cause motion in other objects.

For the notion of a unitary transitive prototype, it is critical to understand that the image schema proposed for the "prototypical transitive event", including a probably human agent with a probably non-human patient causing a change of state or location, is a slightly later acquisition COMBINING the earlier schemas of independent, animate motion/ change of state and non-independent, non-animate motion/change of state. This conforms remarkably well to the three "levels" of transitivity most commonly proposed: high transitive (two participants engaged in a unilateral activity with a clearly causal agent and clearly affected patient); "mid"-transitive (one participant engaged in a change of state or location without external cause); and "low" transitive (one participant engaged in a durative state involving little to no change--these latter two are often referred to as "intransitive"). The evidence above suggests the more appropriate explanation would include *three* prototypes (or three typical instantiations of a single event complex), rather than just one. This is precisely what Croft (1994), Kemmer (1994), and Bakker (1994) variously propose.

Croft (1994:92) presents seven characteristics typifying a "simple event," two of which are of particular interest here:

- (f) simple event structure consists of the three-segment causal chain: cause-become-state;
- (g) simple event structure is endpoint-oriented: possible verbs consist of the last segment (stative), the second and last segments (inchoative), or the whole three segments (causative).

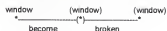
Basically, he is claiming that verbs have an underlying Idealized Cognitive Model (hereafter ICM, following Lakoff, 1987) which represents a "self-contained event...isolated from the causal network and individualized for various purposes...Subjects and objects represent the *starting point* and *end point* respectively" (92). However, these ICMs do *not* create verb classes or event classes, rather they correspond to the unmarked event view associated with the verb: causative, inchoative, and stative. Thus in an interesting twist on the problem of transitivity, Croft argues for an underlying event conceptualization (see figure below) which can have all or any part of it "contained" for the purposes of representing an event. Further, the events denoted by verbs are

typically associated with one part (or all) of the idealized event; these are the event views. The asterisks and parentheses mark the point at which the "typical association" ends.

Causative *The rock broke the window*



Inchoative *The window broke*



Stative *The window is broken*



Figure 2.5: Croft's Event Views

Croft then argues that verbal markedness patterns found in various languages (English, French, Japanese, Korean) represent the most "natural" or "typical" event view associated with the verb (100-101):

This construal is based on human experience of the event, and is not surprising. In general, unmarked statives are found with verbs denoting events that in human experience most commonly are inherent properties, not implying any internal cause.... Unmarked causatives are found in verbs denoting events that frequently or almost always occur in human experience with an external cause.... Unmarked intransitives...are found in verbs denoting events that are commonly not permanent (i.e. they can change) and most frequently occur—or are construed to occur—without an external cause.

Basic and derived forms can be found with each of the basic event views:

Causative→Inchoative→Stative on Causative Event View

- (1) Olaf opened the door.
- (2) The door opened.
- (3) The door is open.

Inchoative→Stative on Inchoative Event View

- (4) Sven fishes.
- (5) Sven's a good fisherman.

Stative→Caused Stative on Stative Event View

- (6) pure sugar
- (7) purified sugar

Croft then ties together various linguistic perspectives on events by showing that causative-inchoative-stative, transitive-intransitive-adjective, and active-middle-passive are semantically different manifestations of the basic tripartite ICM of events as figured above (102):

Verb Form	Event Views		
Derived	causative	<i>inchoative</i>	<i>stative(resultative)</i>
Simple	transitive	<i>intransitive</i>	<i>adjective(stative)</i>
Basic Voice	active	<i>middle</i>	<i>passive/resultative</i>

Hence, in the end, Croft is arguing for a model with three "basic" forms, each of them representing a portion of the ICM of events, but each of them also forming a natural "locus" against which events construed as corresponding to that center are assessed thus producing marked and unmarked forms for EACH of the event views.

Kemmer (1994) adds to the discussion the notion "relative elaboration of events" which is not unlike Croft's event views, though she introduces the specific aspects of events which are manipulated to produce different event perspectives. She explains the "relative elaboration of events" as "the degree to which different schematic aspects of a situation are separated out and viewed distinct by the speaker. The speaker in effect can choose to 'turn up' or 'turn down' the resolution with which a particular event is viewed in order to highlight its internal structure to a greater or lesser extent" (211).

Two important "schematic aspects" are the distinguishability of participants and distinguishability of sub-components of the event itself. Kemmer also uses the by-now-familiar event schema to represent what she simply terms a "2 participant Event Schema":

2 PARTICIPANT EVENT SCHEMA



Figure 2.6: Kemmer's Event Schema

She uses the terms "Initiator" and "Endpoint" to capture both the schematic placement and semantic characterization of the participants themselves. She is specifically claiming that the

distinguishability of participants is one semantic parameter along which the cline from "transitive" to "intransitive" differ (209):



Kemmer observes that two-participant events encode maximal distinguishability of participants, reflexives encode an event where essentially the Initiator and Endpoint are the same participant (though linguistically marked with "two" participants through reflexive pronouns, clitics, etc.), middles encode a similar situation but without the linguistic marking of two participants, and one-participant events code a single participant who may be either Initiator or Endpoint. Striking in her analysis is the notion that the semantic characteristics of the participants and the number of participants are two separate issues: events may be construed as having two participants with fully distinguished semantic characters, as having one participant with either semantic character, or some blend within (the particular combinations limited, of course, by individual languages). This separation allows a much neater and satisfying explanation for constructions like the English get-passive which combines the semantic characters Initiator/Endpoint with a construction traditionally associated with a topicalized Endpoint, thereby preserving the pragmatic impact of the passive voice with the semantic import of a reflexive and explaining the constraint against any mention of an external cause. It also provides an explanation for why intransitive constructions are generally of two basic types: intransitive activity (a single participant activity with an Initiator) versus an intransitive stative (a single participant activity with an Endpoint).

Bakker (1994) is also interested in explaining the linguistic behavior of middles, particularly in Ancient Greek. His analysis, though, offers some provocative insights into the relationship between events and the semantic parameters informing them. He locates the crux of transitivity in Ancient Greek in the subject/agent-related parameters given by Hopper and Thompson (1980): Volitionality, Agency, and adding Causation. Volitionality, Agency, and Causation are separated basically by telicity, where Volitionality is simply free will of the subject,

Agency is goal-directed volitional action (to self or other participant), and Causation is other-participant goal-directed volitional action producing an effect. Transitivity, according to Bakker, is on a bi-direction cline in relation to these elements (25):



Thus, a causative event with two participants is high in transitivity while a volitional event with a single participant is low in transitivity. When the parameter of affectedness is added, it can be found in either end of the subject/agent spectrum: the subject/agent can be affected or can do the affecting. In the former case, the middle arises (either as a "natural" situation type as in *growing up* or as a construed property expressed by the middle form).

Again, what is noteworthy about Bakker with regards to this discussion is the separation of "transitivity" into natural types according to the semantic characteristics of the participants and inherent semantics of events themselves. Thus a picture emerges of "prototypical" transitivity which is not adequately captured by proposing a single two-participant event with a complex of features, but calls for a range of at least three "prototypes" each crossed by the cline of participant characterization from responsible Initiator/Effector/Causal Endpoint to non-responsible Affected/Non-Causal Endpoint. Recalling Mandler's basic motion schemata and Slobin's early language patterns provides additional support for the notion that event structure is best represented by the three "stages" of a causative event: first, a single participant capable of volitional activity (animate, biologically caused motion and early acquisition of ergative morphology); second, a single participant undergoing some change (inanimate, non-biologically caused motion and early acquisition of accusative morphology); third, two participants interacting where one causes a change of state or location in the other (animate, biologically caused motion acting to effect inanimate, non-biologically caused motion and the relatively early acquisition of

SVO word order patterns versus the relatively later acquisition of fully passive forms, "OV-ed by S").

These basic event structures form the conceptual basis which the linguistic system of transitivity expresses. Specifically, transitivity expresses the **event view** (Croft) or **event perspective** (Slobin, Berman and Slobin) of cognitive/conceptual event structures (this will be discussed in greater detail below). There appear to be three basic event views expressed by the transitivity system, as the discussion above proposes. There is, though, the puzzling absence of a fourth, the purely stative. That is, one would guess that the first, and most basic perception of an infant is "existence." Since children first learn the names of objects, there is even some developmental support for this notion. Croft suggests as much with his "stative" event view which is often grammaticized by adjectives. However, it seems to me that pure states such as identification and ascription--while predications--are not really events at all. Cross-linguistically, there is better evidence via the number of languages which create states through adjectival constructions that pure states should be considered a conceptual model of its own, separate from the event structures relating to transitivity. I will assume as much for this project.

2.3.2.1 Berman and Slobin revisited--event construal

As discussed briefly in Chapter One, Berman and Slobin identify four dimensions of event construal (selection of topic, loci of control, event view, and degree of agency). Specifically, they make the claim that these dimensions are part of the **preverbal message**: "Before one can say anything, one must decide what one wants to say. As Levell has put it: 'The construction of a preverbal message is a first step in the generation of speech' (1989, p. 107). We propose that, in constructing a preverbal message, the speaker must make decisions on at least four **dimensions of event construal...**" (517). Once the dimensions are decided upon, various grammatical options are entailed, of which transitivity is one system. Transitivity, then, is part of the grammatical system but not the underlying cognitive system; that is, I accept for this project that Berman and Slobin's preverbal dimensions are (part of) the general cognitive orientations available, probably throughout the cognitive system, but *linguistically*, transitivity is

one grammatical system through which these dimensions are realized. This represents a departure from Rice (1987) who seems to claim that transitivity is the "underlying system" which is realized verbally: "...transitivity [can be] viewed as a continuous phenomenon and as a phenomenon (or as a family of phenomena ranging across different cognitive domains) that can be explained in an essentially non-linguistic way" (7). My claim is that Event construal and its dimensions are the underlying, preverbal system, and transitivity is one of the linguistic systems instantiating them. Other options, as discussed by Berman and Slobin, include, for instance, the lexical system which provides means for expressing degree of agency, as with adverbs such as "unintentionally" and "deliberately" which modify the interpretation of the event through non-grammatical means.

Specifically, it is my claim that transitivity realizes the selection of Event view. Event view refers to the "cognitive perspectives on events, rather than to verbs" (Berman and Slobin, 519). Berman and Slobin identify three choices for event view: Cause, Become, and State. In Cause view, the event is represented with an actor who causes a change of state in the undergoer (Berman and Slobin make use of Van Valin's macrorole terms, actor and undergoer, as mentioned in Chapter One). In the Become view, a change of state takes place without mention of external force. For the State view, reference is made only to the continuing state of the participant. While Berman and Slobin draw the obvious connections between Cause-Become-State to the verbal systems proposed by Vendler, Dowty, and Van Valin, I would hazard these three Events views are realized at the level of the clause as the three prototypes of transitivity rather than lexically as verbal categories. In summary, if the overall function of grammar is to mediate internal, mental representation with communicative needs and intents, then transitivity specifically mediates the internal (preverbal) representation of Event view and the communicative intent of perspective (discussed in detail in Chapter Three). Transitivity as a system is limited to the expression of Event view only-- the whole of event construal and its communication employs a vaster amount of linguistic (and probably non-linguistic) material.

2.3.2.2 Degrees of transitivity

Given the argument above, the question of whether there are "degrees" of transitivity becomes an even more interesting issue. Traditionally, there have been two alternatives proposed to this problem. The first is a continuum from "High" to "Low" (Hopper and Thompson, 1980; Rice, 1984); the second offers specific levels of high, mid, and low (Halliday, 1967). While to some extent both claim the same thing, Halliday's specific levels seem to find greater validity grammatically. That is, grammar in general does not tend to operate along smooth clines between endpoints, but to manifest particular forms according to particular points between two endpoints. The lexicon compensates for grammar's relative intransigence by offering the possibility for the kind of subtle and continuous changes implied by the notion "continuum."

This interpretation fits well with the notion of three basic event schematas which are realized through various transitivity options. It is something of a misnomer to claim "high," "mid," and "low" levels of transitivity when each of the clause structures typically associated with these labels is actually a prototype in and of itself. Rather, there are degrees of transitivity within each of the basic types, probably with their own, separate semantics. For example, "really high" transitivity may be distinguished from merely high transitivity through the agency/patient implicatures discussed below. "Very low" transitivity can be distinguished from simple "low" transitivity by the distinction of durative action versus state. It is the "middle" transitives that are the most interesting, encompassing as they do varied combinations of participant semantics and clausal expression. In the end, rather than conceptualizing three degrees of transitivity, we instead should conceptualize three event structures realized via transitivity, each with its own possible clines and opportunities for grammatical expression.

This argument is essentially what Croft, Kemmer, and Bakker are claiming: there are a variety of basic event types possible—Mandler provides independent evidence in her speculations on the physical origins of event structure: "self-caused" animate, biologically inherent motion and "other-caused" non-animate, non-biologically inherent motion. I would add to that a third category, also readily available to the child: non-caused motion which are changes of state and/or location without external cause but also without internal "control" such as

sleeping, breathing, living, etc. These three also correspond well to ALL of the sides of an event: before, during, and after which are all grammaticized: $\rightarrow A/ A \rightarrow B/ B \rightarrow$.

For example, what makes for a sentence which passivizes well need not be something prototypical, but a particular collocation of semantic factors in the event structure. In particular, one in which minimally, affectedness can be deduced (either by change of location or change of state) and (ideally) where the trajectory of the event and the endpoint of the event are one and the same. Interestingly enough, in English, following Slobin (1994), Taimy (1991), and Hopper (1991), this is NOT necessarily the norm. In English, very often predication is spread out over several members of the clause, most often over a combination of the verb (incorporating manner) and a prepositional element (indicating path). Statistically, this is a quite common phenomenon, so much so that it seems rather absurd to claim that the active, declarative, with human subject and non-human affected patient is THE prototypical eventive sentence in English. Rather, it is the sentence on the far end of the affectedness and trajectory scale--highest in eventive dynamism, perhaps. Thus, what is most typical is a combination of endpoints and trajectory: either an endpoint which is capable of self-trajectory (mid-transitive, "become" or "act," single-argument clause); an endpoint not capable of self-trajectory (a low transitive, "state", single-argument clause); and two endpoints sharing a trajectory (a high transitive, "cause", two-argument clause OR a mid-high transitive with two endpoints sharing a trajectory spread out over a clause + phrase combination). Within each "prototype," there are a range of better members.

2.3.3. Event Structure and Transitivity

It is the contention of this project that Event Structure is the cognitive system and transitivity the linguistic system. In fact, given Mandler's hypotheses about the possible origin's for the expression of events, it seems likely that transitivity is to some extent "inferred" by the child as a later, or second, step in this acquisition process. According to Mandler, the child first distinguishes biological movement from non-biological movement, and "recognizes" or "infers" the second is caused motion (see also Bruner, 1989). Another way of viewing the matter is that the infant begins to recognize which endpoint of motion or change is responsible for the activity and which is not. This is the possible beginning of perspective. The notion that affectedness is

also interpretable as "the party not responsible for the change" is linguistically verifiable by grammatical behavior of components which are construed as both affected and responsible in some manner, ie. the *get*-passive in English, reflexive constructions, and middle constructions. Thus, in the structure of events, several components are basic which find themselves coded by a variety of linguistic expressions (none of which should rightfully be called more basic or prototypical than the other):

(1)– The Trajectory Component

This component is part of two based in the notion of caused, other-caused, or non-caused motion begun in the perception of biologically and non-biologically rooted motion (Mandler, 1991). It is where the notion "unilateral activity" in transitivity originates.

(2)– The EndPoint/s Component

This is the second part of the two bases in the various notions of caused motion. Basically, the motion is seen in its relationship to where it begins and where it ends (hereafter distinguished as Starting point and Ending point, respectively). This is ultimately where the conceptual notions of causation, intention, and responsibility originate since these are the various semantic/pragmatic perspectives ascribable to the endpoints involved. Thus, linguistically, this is also where such notions as "agent" and "patient" evolve from.

(1) + (2) = (3)– The EndPoint and Trajectory Complex

These two together act as the basis of Event Structure (Croft, Langacker, Lakoff, Kemmer, Rice, Mandler, Talmy). However, contrary to the claims of Rice and Givón, the particular combination of two endpoints plus a unilateral trajectory is not more basic than any of the other combinations. Thus, I am following Croft and Kemmer who propose that there are a range of possible prototypes which in turn are coded by a variety of linguistic expressions each with a probable most "typical" or "canonical" form. Berman and Slobin (1994), Slobin (1994), Talmy (1991), and Hopper (1991) among others imply as much with their particular interpretations. Slobin (inter alia) recognizes three basic event types to Event Construal: Cause, Become, and State. Talmy shows that typologically, different languages convey endpoint +

trajectory complexes in typical ways with different linguistic parsings of the whole. Hopper shows that English often chooses to array two endpoints + trajectory complexes over several elements in the sentence, rather than in just the traditional "transitive" construction. Luchjenbroers (1996) shows how the complex constructions Hopper investigates have real and verifiable discourse effects in terms of information packaging. Bruner (1986) summarizes the various infant studies suggesting that we are sensitive to the roles of causation and intention at very young ages. Givón and Lang (1994), without really intending to, give additional support in their diachronic treatment of the *get*-passive in English by demonstrating how this unique construction developed as a means of expressing both affectedness and responsibility simultaneously. Hargreaves (1996) also demonstrates inflectional categories which are directly sensitive to the knowability of intention in the morphology of control verbs in Newari.

The **event complex** (here really a simpler version compared to others), then, is a basic cognitive, conceptual structure which gets coded through a variety of linguistic devices, including participant semantics and transitivity. Transitivity, though, is not the cognitively basic structure; it is one linguistic/grammatical system expressing a certain part of the event complex, that part being the *particular array of endpoint and trajectory relationships*. At the level of syntax, this results in clause structures as stamped out by circumscribing endpoint + trajectory relationships marked by language-specific renderings of the "responsibility" of the endpoints (as in accusative versus absolutive languages). At the level of semantics, this results in the various sentence types and alternations allowed and disallowed as expressions of energy flow and participant relationships (influenced, I would contend, by pragmatics in the guise of cultural and "real world" knowledge). At the level of discourse, this means participants and "event" relationships PLUS perspective-- a discourse-semantic interaction, construed variously in languages according to what the transitivity system allows together with language-specific constraints on coherence.

Since "transitivity" as a term is fast-losing its significance due to overextension, we confine it to the grammatical level of expressing EndPoint-Trajectory relationships (hereafter P/T relationships). Each language encodes these relationships differently, and in a manner I believe is well-described by Talmy's "verb-framed" and "satellite-framed" typological distinction (1985).

Slobin (1996) confirms as much in his comparison of texts in English and Spanish, showing that while event structure conceptually encompasses the whole of P/T relationships, there are regular patterns instantiated in various languages. In English, very often P/T relationships are not coded within a single clause but in clause-phrase combinations (see Hopper and Luchjenbroers cited above), as in *Cora swung his blade and cut down the opposing swordswoman*. Spanish, however, tends to code both the "manner" of the activity and its trajectory in a single verb. This difference results in both different lexicalizations of verbs and also different pattern of discourse.

For English, transitivity actually has FOUR forms in which it is expressed, each instantiating particular P/T relationships and clause structure. These are the four clause-types of transitivity in English (please see Figure at chapter's end for a schematic representation and textual examples).

- Intransitive(Durative transitive)**— Endpoint but little Trajectory, bound by the same clause
- Atelic Transitive**— single Endpoint plus Trajectory in either direction, bound by the same clause
- Telic Transitive**— two Endpoints plus Trajectory, bound by the same clause
- Dispersed Transitive**— two Endpoints plus Trajectory specified across a clause and a phrase

These forms are descriptive in nature, although they have theoretical and typological bases. They will also be used as working terms throughout the project. Ultimately, I believe the above terms are more accurate than the concept of degrees since, as shown above, there are not degrees of transitivity from a single prototype, but (at least) three different "prototypes" each with its own "degrees." Languages are more properly investigated for how they express Point/Trajectory complexes than for their "degrees" of transitivity. At the level of text, participant semantics, lexical semantics, and pragmatics also come into play to create the entire implicature normally labeled "transitivity." Throughout this project, I will use the terms Starting point, Ending point, Trajectory, and P/T complex when referring to the purely schematic aspects of transitivity.

2.3.4 "Agent," "Patient" and Other Labels

Having dealt with the extension of prototype to transitivity and discarded the notion of a single prototype in favor of at least three prototypes expressed via four clause types, we now move to a different level of meaning—participant semantics. Recall that Givón, Hopper and Thompson, and Rice among others accept the roles "agent" and "patient" as core relationships

within transitivity. An alternative approach exemplified by Croft and Kemmer is to separate the semantic labels attached to participants from their schematic roles. Taken together, there is convincing evidence that event participants code at least two different sets of parameters (at the level of the clause): first, the purely schematic, abstract position in event structure, either as starting point or ending point; second, a semantic character expressing the relationship of participant to event, generally as the initiating, responsible party or the affected party undergoing a change of state. The most common labels for the semantic roles has been "agent" and "patient," respectively.

Rice (1987) argues that in order for there to be a transfer of effect from one participant to another, one participant must possess the means to affect the second in an activity which is forceful and flows in only one direction. The means possessed by the first participant may be inherent to the activity, the first participant, or the relationship between participants and may be understood from real world knowledge as well as linguistic knowledge. Hopper and Thompson make similar claims, stating there must be two participants for High transitivity, and that one participant is an Agent high in potency and volition. The other participant, which is highly individuated, contrasts by being totally affected by the kinetic action.

Van Valin and Wilkins (1996) argue against "agent" as a prototype. They base their conclusion on the work of Holisky (1987), who demonstrated that agency is actually an *implicature* at the "...intersection of the semantics of the clause (the semantics of both the actor NP and the predicate) and general principle of conversation (cf. Grice, 1975)" (309). Holisky designates a pragmatic principle in the process, designated by her as Pragmatic Principle [8]. You may interpret effectors and effector-themes which are human as agents (in the absence of evidence to the contrary). Where Holisky based her assertions on evidence in Tsova-Tush, Van Valin and Wilkins offer straightforward examples from English.

- (8) Larry killed the deer.
- (9) Larry intentionally killed the deer.
- (10) Larry accidentally killed the deer.
- (11) The explosion killed the deer.

In (8), there is no explicit mark for whether the actor is an agent or not (though by Holisky's principle [8] above, we interpret it to be so), while (9) confirms this as a potential interpretation. On the other hand, (10) provides "information to the contrary," disconfirming the agentive nature of "Larry" and leaving him merely as a causal participant. Sentence (11) shows that the actor need not be animate at all, and therefore no appeal is made to Holisky's pragmatic principle.

It is not the case that NO verbs have an inherent agent. Obviously, *murder* does. But inherent agency is relatively rare. Van Valin and Wilkins argue:

This has important implications for the notion 'agent prototype' and the idea that relations like force and instrument are just 'less good' members of the category of which agent is the central member. *The features in question do not in fact define a prototype, but rather constitute the relevant information on the basis of which the agent implicature is made. Moreover, force and instrument are not variants on agent at all but rather are variants of the effector role which underlies agent as well. All three roles are doers which differ in certain crucial ways along the dimensions of the lexical properties of the NP and their position in the causal sequence defined by the verb.* (320) [emphasis added]

While the entirety of their proof is too extensive to go into here, basically, the NP properties they are referring to are "animate/non-animate" and "instigator/non-instigator." Animacy distinguishes effectors capable of feeling, self-expression, and self-movement from those incapable of the same. Instigation refers to whether the effector is "self-energetic", that is, has an inherent energy source, as with natural forces. In combination, the three primary starting point/effector roles emerge: the agent who is animate, instigator and preferably human (though animacy can also be ascribed to culture-specific entities); the force which is non-animate but instigator; the instrument which is non-animate, non-instigator, but still the effector.

There are two striking consequences of the above analysis. First, a more constrained and thoughtful approach is taken to the ubiquitous notion of prototype. Second, a viable alternative linguistic process—implicature—is offered to balance the picture. As we shall see in the subsequent chapters, implicature is an important factor to processing at the level of discourse.

Just as "agent" is not necessarily a prototypical participant, "patient" is equally dubious. As Bakker demonstrates, the "prototypical" patient actually *reduces* transitivity in Ancient Greek

by lowering the volitionality, hence the overall measure of transitivity for the event (1994, 43). This should not be surprising since something similar happens in English when the whole of event structure is spread out over the verb phrase plus a prepositional phrase: *Cora swung his blade and cut down the opposing swordswoman*. While the first predication, *Cora swung his blade* is "transitive" in the sense of having a syntactic direct object, the entire event in question has two parts: the initiating event (swinging the blade) and the ending result (cutting down the opponent). Recall that Kemmer's elaboration of events allows various levels of focus on the event so that a whole structure such as might be expressed in a basic transitive clause, i.e. *Cora killed the opposing swordswoman*, can be expressed via attention to any of its parts. Nevertheless, "the blade" in question, while a prototypical patient (it is affected by change of location, non-human) is really but an instrument in the overall event; it is not the instigating force, and is not the *locus of effect*.

Just as "agent" is an implicature from a more basic role, Effector, "patient" is likewise an implicature based on lexical, semantic, and pragmatic factors. The appeal of agency and patienthood as necessary qualities derives from their antonymical quality; they are not merely distinct, they are *maximally* distinct. Yet they are not essential to high transitivity. Instead, they mark the far endpoints, the points at which transitivity as a system is easiest to see. Indeed, the semantic characterization at work here seems to be "asymmetry." In "really high" transitivity, there are indeed both highly agentive subjects and highly affected participants, e.g. *John kicked the sleeping poodle/Brutus smashed the antique vase*. On the other hand, for merely "high" transitivity, (as defined by the possibility of passive and/or middle alternations), only one of the participants need be capable of effecting or of being affected: *Olaf jumped the fence; Bertha danced Swan Lake beautifully; The moon orbits the earth; Sven broke the glass; Gertrude drove the car; The wind blew the leaves gently*.

Participant asymmetry, "skewing" as it is termed here, has actual structural effects. That which is not skewed towards the affected participant (or which is not neutral with regards to either end) has limitations. Thus, the difference between *Brutus shattered the glass* and *Brutus*

smashed the glass is that the first is skewed towards the Affected and the second towards the Effector. As a result, the middle construction is available to the first, but not to the second: *The glass shattered/ * The glass smashed*. There are discourse consequences as well. Whichever participant end is skewed towards is also more likely to continue as topic in subsequent discourse. It should be remembered, though, that P/T complexes alone do not have this quality. The P/T complex is schematic, conceptual, but lacks the semantic richness of participant semantics.

For this study, the term "patient" will be avoided, and instead the term "Affected" will be used for the participant which is the locus of effect. In the same vein, "Effector" will be the term used for the semantic character of the participant which initiates or causes the activity in an event. For participants, then, "Starting point" and "Ending point" will be used when the reference is to event structure, while "Effector" and "Affected" will be used when the reference is to participant semantics.

2.3.5 Verbal Modality--Teasing Apart Semantics and Pragmatics

There are still a few issues which need to be settled. Recall that Givón claims that the prototypical verb in a transitive clause is "fast-paced, completed, real, and perceptually-cognitively salient." We shall take each of these one by one and see what a closer examination yields for transitivity.

2.3.5.1 Fast-paced

The notion "fast-paced" is characterized as transfer of effect from source to goal which is so fast as to be instantaneous. Yet even for telic transitive clauses, there seems to be little support for this: *Sven kicked the dog/The dog was kicked by Sven; Sven cooked the dinner/The dinner was cooked by Sven;/Sven studied the questions/The questions were studied by Sven; Sven studied chemistry/?Chemistry was studied by Sven*. In the examples above, there is a clear decrease in the instantaneous nature of the event, yet all but one passivize; only in the case where the goal is not quantified does passivization suffer. The instantaneous quality of the action seems to have less to do with transitivity than is supposed. All the sentences above are telic transitive clauses despite the range from "fast-changing" to "slow changing" to durative

event. The lack of importance of instantaneous effect is not surprising given the components of transitivity proposed thus far; it is not how quick the verb is but the particular set of asymmetries instantiated in the clause.

2.3.5.2 Completed

A completed event is linguistically defined as one which is bounded. Boundedness, according to Givón, is a verbal quality meaning "non-lingering" (p. 46, vol. II). "Non-lingering" as a term seems to imply time; in fact, it is more accurately understood as "completion of the event." Yet another way of looking at it may be that when the activity is over, all of the goal is affected, not just part of it. Verkuyl (1990) argues persuasively for the contribution of the object to the "inner aspect" of the predicate. When the object is of a "specified quantity," the phrase yields a bounded event because the quantity of the object is exhausted by the activity. However, it is not necessarily the case that the goal is not affected in non-bounded situations, but that the effect is not complete.

Completedness is easiest to reckon within telic transitives. In these clauses, the end of the activity is signaled by overt mention--the affected object itself. In essence, the event finishes itself by completing the change of state or location of the Affected participant.

- (12) Olaf ate the fish.
- (13) Olaf cooked the fish.
- (14) Olaf put the fish in the refrigerator.

Thus it is easy to see how telic transitives include a strong element of completion. Nevertheless, atelic transitives also have a sense of completion except that it is generally inherent to the verb itself.

- (15) Sven jumped.
- (16) Gertrude sneezed.
- (17) Brutus grinned wickedly.
- (18) Brunhilda chortled in joy.

Each of these is a "completed" activity--the activity does not linger (for example, although we don't normally conceptualize a grin as punctual, to make it non-punctual additional information must be added to the sentence: *Brutus kept grinning wickedly*). Thus it is clear that the activity

is not bound by a change-of-state of a second participant but by the inherent semantics of the verb itself as it refers to the one engaged in the activity.

Obviously, it is the intransitive clause which has the least sense of completion. However, as these sentences show, it is not completion which is the semantic factor, but the durativity of the events themselves.

- (19) Bertha grew up in Minnesota.
- (20) Sven knew all the answers.
- (21) Elvira lived in New York for ten years.

One other factor influences our sense of verbal completedness: tense. Any activity in the past tense carries with it a sense of "doneness." Thus, if (12) were re-written *Olaef eats the fish/fish*, our sense of boundedness is completely changed. The question is--has the transitivity of the event changed as well? According to the explanation above, transitivity has not changed. There is still a P/T complex with an Starting Point, an Ending Point, and a Trajectory joining them. There is still an Effector and Affected. What has changed is not the transitivity of the clause, but the speaker-hearer relationship to the event. The pragmatics are different, not the semantics. Completedness is more properly understood as a pragmatic implication related to tense than as a semantic element of transitivity.

2.3.5.3 Perceptually-cognitively salient

Many authors have argued that dynamism--the degree of "activity inherent to the verb"--is an important aspect of transitivity. Intuitively this seems to be the case, and this is no doubt where the attribute "fast-changing" originated. Yet there is no quantifiable or explanatory definition by which dynamism can be assessed. I would like to offer one in terms of transitivity as hypothesized thus far. This discussion springs from the observation of many linguists, but primarily those from functional and cognitive schools, and may serve as an explanatory device for dynamism.

At first glance, it appears simple enough to appeal to the Affectedness relationship in measuring dynamism. Intuitively, *break* and *shatter* are in a degree relationship in which the goal of *shatter* is more affected than the goal of *break*. This observation holds true for other verbs as well: *drink-gulp-quaff*; *nibble-eat-gorge*; *throw-hurl*, etc. On the other hand, there are

lexical sets which change the effectiveness of the source instead: *kill-murder*; *clean-scrub-scour*; *hit-punch*. There are still other alternations, skewed so far in the direction of source or goal that different lexical forms are used: *kill-die*; *sit-set*; *teach-learn*; *buy-sell*; etc.

Notably, the difference in these pairs of terms is not just the number of arguments the verb can take but the semantic roles of the arguments themselves. That is, for many actions, there are both lexical and grammatical options for selecting which perspective on a situation is opted for in discourse. In the sentences below, (25) and (26) demonstrate that English allows both the pragmatically understood force and instrument to be the "source" of the action.

Example (27) shows that both of the above can passivize. In (28)-(35) various grammatical forms topicalize the affected participant whereas (28), (29), (30) and (35) show that lexical choice also contributes to the clausal combinations permitted by the grammar of English.

- (22) John broke the window.
- (23) The rock broke the window.
- (24) The window was broken by John/the rock.
- (25) The window broke/*by John.
- (26) The window broke easily/with difficulty/*difficultly.
- (27) *The windows break easily/Windows break easily.
- (28) The windows break easily, but the wooden frames do not.
- (29) Windows broke easily; wood was but little harder.
- (30) (John threw the rock) The window broke/shattered.
- (31) John broke/destroyed/crushed the window with a rock.
- (32) *The window destroyed/crushed.

Both the Effector and Affected roles get lexicalized in English, and certain constructions such as the middle are also Affected-oriented

Weirzbicka (1988) offers an intriguing analysis of causation and lexicalization. English, she proposes, is filled with many level of causative, instantiated in lexical causatives as well as periphrastic causal constructions. The list of lexical causatives (252-3) which "pays attention to different strategies of human causation" rather neatly dichotomizes between Effector-oriented and Affected-oriented lexical items: *order, command, demand, require, suggest, advocate, instruct, persuade, decree, ordain, authorize, commission; beg, implore, beseech, entreat, plead, intercede, apply, appeal, enjoin*. There were a few items difficult to classify either way, which seem to form the "basic" category against which the others are organized: *ask, request, tell*.

This list further substantiates the idea that given an event, the whole of the event is conceptually available but certain highly relevant, highly predictable relationships are the ones that actually become lexicalized items.

Is there anything in our discussion so far which might explain or provide an organizational umbrella for the behavior described above? I believe the cognitive relationship of asymmetry, as discussed by Rice but made linguistically relevant by Slobin, may be the answer. Slobin (1973) makes strong arguments for the cognitive impact of asymmetry as a basic organizing principle in human beings. Infants very quickly show a preference for asymmetrical relationships such as handedness. Other infant studies show surprise responses can be provoked when certain basic asymmetrical relationships are violated. Further, one of the hallmarks of linguistic sophistication in terms of narrative is the degree to which speakers can differently construe cause-effect relationships among events (Berman and Slobin, 1994). Less mature narrators tend to string events together using a simple conjunctive "and." As speakers mature, they form hierarchical relationships in the narrative, beginning with simpler causal chains (and then he did x because...), gradually incorporating the sophisticated tense/aspect and lexical "complexes" we associate with adult narration.

Loosely speaking, this language development is understood by these authors as a manifestation of our cognitive predisposition towards asymmetry. Lexically, asymmetry manifests itself in the sort of relationships discussed by Bybee, Langacker, and Weirzbecka. Lexical choice has an effect on transitivity insofar as any verb is "skewed" towards one end of the Effector-Affected continuum. Those verbs which include both the source and goal semantically, generally speaking, participate in telic transitive clauses. Those skewed strongly to either Effector or Affected result in atelic transitives. Thus "perceptual-cognitive salience" of a verb may be partially defined as the degree to which the lexical item is skewed towards the affected participant in an action. Halliday (1985) suggests as much himself when he claims the transitivity alternations in English are less a matter of inherent meaning than whether the event was viewed from the perspective of the source or the goal.

There is not to my knowledge any kind of list composed according to these parameters (skewed towards source, goal, or neither; but see Levin, 1993), and it is outside the scope of this study to do so. Nevertheless, I will appeal to this notion with the hopes that someone may find it useful for further work.

2.4 Transitivity and Time

The following excerpts will provide examples for the semantic character of transitivity as it is delimited by discourse. Actually, most of this discussion is directly germane to Chapter Three and will be explored in greater detail at that point.

Uttering a curse in his well-practiced falsetto, Cora swung his blade and cut down the opposing swordswoman. His contoured breastplate emphasized features which were not truly present.

From "Lady of Steel", R. Zelazny

There was still a company of archers that held their ground among the burning houses. Their captain was Bard, whose friends had accused him of prophesying flood and poisoned fish, though they know his worth and courage. He was a descendant in the line of Girion, Lord of Dale, whose wife and child had escaped down the Running River from the ruin long ago. Now he used a great yew bow, loosing arrows at the dragon until all of them but one were spent. The flames were near him. His companions were leaving him. He bent his bow for the last time.

From *The Hobbit*, J.R.R. Tolkien

Each of the above excerpts is the initial paragraph of the episodes in question. The first is the first paragraph of a (very) short story. The second is the beginning to a particular episode in *The Hobbit*, marked by a change of scene and the eventual closure to this string of events. Of particular interest here are the last two sentences of each (which in the Zelazny text includes the whole of the paragraph).

The two sentences, *His contoured breastplate emphasized features which were not truly present* and *His companions were leaving him*, both have many of the elements required of "high" transitivity. There are two participants, a grammatical subject and object, and a path of movement (the first perceptual, the second physical). Both sentences passivize, and textually, could passivize with little or no distortion to the story-line (again, this is a discourse constraint on the perspective-providing function of transitivity and will be explained in greater depth in the following chapter).

Uttering a curse in his well-practiced falsetto, Cora swung his blade and cut down the opposing swordswoman. **Features were emphasized on his contoured breastplate which were not truly present.**

From "Lady of Steel", R. Zelazny

There was still a company of archers that held their ground among the burning houses. Their captain was Bard, whose friends had accused him of prophesying flood and poisoned fish, though they know his worth and courage. He was a descendant in the line of Girion, Lord of Dale, whose wife and child had escaped down the Running River from the ruin long ago. Now he used a great yew bow, loosing arrows at the dragon until all of them but one were spent. The flames were near him. **He was being left by his companions.** He bent his bow for the last time.

From *The Hobbit*, J.R.R. Tolkien

Nevertheless, it is intuitively obvious that these sentences, while subscribing to the structural dictates most frequently associated with transitivity, don't "feel" particularly transitive. Given the propositions above--namely, that there is more than one Event Structure prototype and that the semantic character of Starting points and Ending points in Event Structure are derived by implicature rather prototype--we can see these sentences conform to a structural prototype while differing in participant and verbal semantics, much as Kemmer suggests for the distinction between reflexives and middles.

For the sentence, *His contoured breastplate emphasized features which were not truly present*, two dimensions of participant semantics are played with: the Effector/Affected dimension and predicate causality. First, *his contoured breastplate* is in the subject slot, hence the Effector role, but according to Van Valin and Wilkin's features, has neither animacy or instigator qualities. The NP is not capable of self-motion nor is it self-energetic. Thus, it is more of an instrument than either an agent or force. But it is an instrument of what? We will return to this question shortly.

The object, *features*, is also not an easily identified endpoint because it is poorly distinguished from the initiator in the event. In fact, ultimately, the features and the breastplate are one and the same item, separated from one another by an act of description. Finally, the predication itself is hardly "eventive" in the sense that it points back to itself; the verb "emphasize" means to make more perceptually salient some part of an existing state.

Despite the above, these not-very-distinct participants and this not-very-dynamic event are cast together in a clause structure prototypically associated with just the opposite. This results in an "act of description" or an "event of description." In narrative theory (Fleischmann, 1990; Labov, 1972), descriptive events are labeled "evaluative" in terms of story function and often provide the ground against which a "complicating action" (an event which moves the time-line of the narrative forward) is figured. Descriptive events are also used to draw the reader's attention to some salient fact which provides essential plot-line information. This is precisely the function of this sentence. *His contoured breastplate* is the instrument used to ground the information that the state being predicated is somehow false. It presages an account for the gender mis-match between the name, Cora, and the male pronoun references. For this story (in the appendix), this information is the key knowledge against which the plot unfolds.

The linguistic signalling of this information comes in the particular combination of features. I would like to reiterate that this effect is not accomplished by prototype violation—there is no violation of the structural prototype as the passivization attests. Rather, there is a systematic combination of features along various parameters "signalling" to the reader that an inference must be made in order to complete the meaning (for an excellent discussion of the difference between inferencing as a process and linguistic cognition as a process, please see Givón, 1995, chapter 8). For discourse, implicatures are created which are then "tested" against subsequent information. The various parameters involved include, at least:

- Event Structure**—prototypical dimension of clause meaning based on early-acquired conceptual schemas of motion
- Participant Semantics**—derived by implicature according to lexical semantics, pragmatics from underspecified semantic roles
- Discourse Coherence**—implicature-driven processing involving clausal semantics, pragmatics, topic chains, etc.

As we shall see in Chapters Three and Four, the latter two play a crucial role in licensing the appropriate use of alternative realizations of transitivity, such as the passive and middle.

In the second example sentence, *His companions were leaving him*, a different set of features are played with, almost exclusively confined to the level of discourse. A momentary diversion needs to be made at this point to the linguistic structure of narrative. The features

mentioned above have to do with the nature of narrative as a past-time, event-driven construct (Longacre, 1983; Fleischmann, 1990; Schiffrin, 1981; Hata, 1996). Specifically, they have to do with the contention that preterite as a tense has *no inherent sequential meaning*. This has been a somewhat controversial point since the perfective nature of the simple past is "...ideally suited to reporting experience that has been cognitively packaged into synthetic units amenable to representation as points along a time line" (Fleischmann, 24). Nevertheless, as Comrie has argued, a weak point of linguistic analysis has been the failure to differentiate context-independent, inherent meaning from context-dependent, derived meaning (Fleischmann citing Comrie, 1985). Fleischmann summarizes the argument thusly (24-25):

Several investigators...have therefore argued that the basic function of this PAST is to mark the *foreground* of discourse, while the background is marked by its IPFV counterparts...[yet] neither the figural quality of the PRET nor its sequential quality is an intrinsic part of its meaning; rather, these properties emerge from the interaction of its basic meaning (PAST time + PFV aspect) with a specific discourse context—narrative. In other words, the foregrounding ability of the PRET and the backgrounding ability of the IMP are contextual implicatures derivable from the synthetic and analytic visions of their respective aspects. [emphasis added]

Early investigations into the function of transitivity (most notably, the well-cited Hopper and Thompson, 1980, and Hopper and Thompson, ed., 1982) made precisely the claim that the purpose of "high" transitive constructions in discourse was to foreground information; most particularly, to place a clause and the events it was depicting on the time-line. Yet, our example sentence easily and clearly passivizes; another feature of "high" transitivity. Given the discussion above, it is simple enough to distinguish the inherent meaning of transitivity (which is to provide the three event perspectives introduced above) and its discourse function (which is, I will contend in the following chapter, to provide the grammatical base for the manipulation of perspective according to the constraints of discourse coherence) from the textual function of tense-aspect configurations. In other words, transitivity in and of itself has little or nothing to do with grounding or figuring of time-line information. This is the primary task of tense-aspect in discourse. Thus our example sentence is "high" in transitivity insofar as it depicts an event with distinct Starting and Ending points, a unilateral trajectory, and a change in the circumstances of

the affected participant. However, it is not on the time-line because it is cast in the imperfective, providing the ground for the subsequent action.

On the other end of the spectrum are so-called intransitive events which are indeed on the time-line. These are events featuring either of the single-participant event structures: a participant causing a change of state with no clause-bound mention of the endpoint or a participant undergoing a change of state with no clause-bound mention of an external cause. One brief excerpt from "Lady of Steel" will suffice to demonstrate.

Simultaneous then, attacks came from the right and the left. Beginning his battle-song, he parried to the left, cut to the right, parried left again, cut through that warrior, parried right, and thrust. Both attackers fell.

In this paragraph (the second full paragraph of the story), it is obvious that each of the chained clauses represents a new point on the time-line. The implicature is made by the use of the simple past in perfective form, the use of prepositional phrases specifying change of direction ("dynamic location"), and our knowledge that sword fights are fought by independent series of strokes through time (versus a bomb, which kills en masse with a single discharge). Additionally, the zero marking of the subject/topic clinches the reader's knowledge that the same participant is being talked about. The use of the comma to separate events instead of a period is a signal given by the writer that these events, while sequential, nevertheless happen in very short time intervals. It is a kind of "close focus" camera effect, a metaphor used by a number of linguists (Kemmer, Hopper, Talmy, etc.) and one which will be developed rather extensively in Chapter Three.

Finally, not only do we find single-participant clauses on the time-line, but single participant clauses from both perspectives on the event: Starting and Ending points. First, we have as Initiator, Cora, who is the subject/topic of the entire chained sequence of events. Second, we have as Ending points the attackers who are finally defeated in the final clause. It is important to note here that *pragmatically*, that is, by inference, the reader understands perfectly well that what is happening here is a highly transitive series of events: Cora is attacked--> Cora fights back--> the attackers are killed. What the writer has done is gone inside the events, so to speak, and presented them from a close-focus perspective, the view of the participants.

Grammatically, this is expressed via individual, single participant clauses. Thus even while there is a kind of "macro-Event Structure" implied, the expression of that structure is not constrained to just one view. It is, however, constrained to the view of the participants.

Nevertheless, there is a cognitive basis for the confusion of time-lines, plot-lines, and transitivity. The two-participant transitive sentence (in English) captures two aspects of events, force dynamics and passage of time, and construes them in a parallel fashion to how they are understood. That is, in a sentence such as *Bill kicked the sleeping poodle* both the "line" of force and the "line" of time as the event happens are iconic with the grammatical construal and order of participants: from Bill to the dog both in terms of trajectory and time. It's a rather natural leap to claim that the iconicity operates on the discourse level as well, especially since that is sometimes the case. Part of the challenge of this study is to take this notion of transitivity into realms other than narrative and determine its validity and usefulness in contexts where information flow is separate from time flow.

2.5 The Asymmetry Principle in Cognition and Communication

Thus far in the discussion on semantics, the goal has been to reduce the proliferation of components by searching for commonalities that may unite them on a more abstract level. The particular relationship singled out has been "asymmetry." The discussion was not meant to discredit or detract from the semantic work done so far; indeed, Rice's excellent semantic/cognitive explanation of transitivity has been formative in my own work. Rather, the question is not whether there are cognitive or semantic aspects to transitivity--certainly, there are--but what it means that it is these aspects which are grammatically specified. Why should there be conceptual endpoints in event structure? Why should skewing towards one end of the Effector/Affected relationship be significant? A preliminary answer lies in the statement above: asymmetry. Grammatically, where grammar is understood to be the system mediating internal representation and communication by providing "...a set of options for schematizing experience for the purposes of verbal expression" (Slobin, 1996:75), asymmetry provides one means by which this goal is accomplished. Specifically, asymmetry organizes grammar by presenting sets of salience relationships that can be systematically attended to through time. That is, one way of

organizing information through time so that it is both processable and communicates what the speaker intends is through marking salience so that the hearer knows which information is to be attended to most closely. Regarding transitivity, salience applies to event semantics, participant semantics, and participant-event relationships as instantiated in the clause.

The "Asymmetry Principle" is simply a label for a set of relationships the linguistic community has long noted: heads and tails, verb and satellite, topic and comment, source and goal, binary branching nodes, etc. The only "leap" being made is to say that this is not merely coincidence, but in fact the cognitive principle along which grammar is largely organized. Note the claim is being made for grammar only. If, as Talmy (1994) claims, grammar is the cognitive system mediating what's in the brain and what is communicated, then asymmetry is the (or one of the) cognitive principle(s) doing the organizing. One way of doing this is by systematically creating salience relationships so that at any one time, both speaker and hearer are aware of and can manage attention to the various elements in the discourse. In the case of human beings, the central elements appear to be the participants--this is our locus of concern. And our way of creating and maintaining order is through sets of asymmetrical relationships which manifest salience relationships so that we know where our attention is to be directed.

If asymmetry as an explanatory grammatical principle is to be taken seriously--as a reasonable explanation for the patterns evident in transitivity--then it must also be asked why the set of distinctions clustering in transitivity should do so? Why this particular group of features? I would propose that the set of features distinguishing transitivity as a system do so because they are event-oriented--transitivity is a grammatical structuring of events, a kind of event gestalt. The characterizing element of an event is its **linearity**, both of motion and of time in an iconic relationship. Transitivity realizes the most perceptually salient parts of event structure-- the endpoints and the trajectory connecting them. But as Talmy (1994) has pointed out, languages homologize not only time, but space as well. If transitivity is the grammatical structuring of events, of "linear" information, then it may be reasonably asked if language does not also grammaticize "non-linear" information? Does language have a grammatical structure for information arranged not through time, but in space? Asked in another way, is information ever

conveyed in structures that are not event-driven? As will become apparent, this is not an empty line of inquiry, but essential to understanding the functional and discourse nature of transitivity. The role of the asymmetry principle will be taken up again in Chapters Three and Four as it relates to the discourse structuring of narrative and expository texts.

2.6 Concluding Remarks

Transitivity, as we now see, is a well-constrained system expressing certain aspects of event structure—Starting points, Endpoints, and Trajectories. It is most properly viewed as one component in the ecology of the clause, specifically that component concerned with the semantics and pragmatics of Point-Trajectory relationships. At the level of discourse, though, the effects to which transitivity is put are largely constrained by coherence—and not simply coherence as a cognitive mechanism, but coherence as it is arrayed by different genres in different contexts. In fact, at the “level” of discourse, much of what is crucially important for the formation of clauses is not that critical anymore, and becomes a new and larger “chunk” which is put to use for even more abstract informational purposes. Like a symphony, if the clause is the individual player—and the sentence the entire brass or woodwind section— then discourse is ultimately the conductor.

Figure 2.7: The Four Clause Types of Transitivity

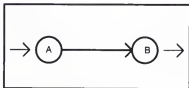
Legend: non-bold graphics--optional elements (probably language specific)

T-- "Little Turtle's Big Adventure"--David Lee Hamison

C-- "Lady of Steel"--Roger Zelazny

H--The Defeat of Smaug, excerpt from *The Hobbit*--J.R.R. Tolkien

A/B--different participants



TELIC TRANSITIVE

P/T Complex: two Points, directed Trajectory

Syntax: bound in same clause

Semantics: two participants, Effector/Affected

Discourse: Basic Perspectival Distance

One morning, a rumble like thunder woke the little turtle. (T)

Finally, warm rain melted the snow. (T)

Then one day, a boy saw the turtle. (T)

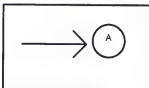
Now he used a great yew bow. (H)

His last throes splintered it to sparks and glides.

(H)

...she bathed the wound. (C)

He heard her gasp. (C)



1) Full on the town he fell. (H)

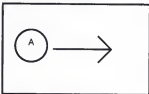
Both attackers fell. (C)

His arms ached by the time he had dealt with the second. (C)

He started, but it was only an old thrush. (H)

...Smaug shot spouting into the air, turned over...(H).

His battle song broke as he... (C)



2) Birds scolded./Autumn came./Snow fell. (T)

Everyday, the little turtle walked. (T).

The great bow twanged. (H)

An axe flashed... (C)

ATELIC TRANSITIVE

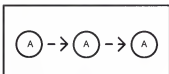
1--Affected/2-Effector

P/T Complex: one Point, directed Trajectory

Syntax: bound in same clause

Semantics: one participant, Effector OR Affected

Discourse: Constrained Perspectival Distance
(close-focus)



DURATIVE TRANSITIVE

P/T Complex: one Point, undirected Trajectory

Syntax: bound in one clause

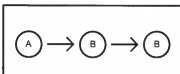
Semantics: one participant, Affected

Discourse: Unconstrained Perspectival Distance
(panoramic)

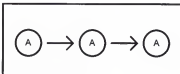
He lay there, clutching his thigh... (C)
...and all seemed anxious to claim the glory...(C)
But the wound extended higher. (C)

(complex constructions)

Marvelling, he found he could understand its
tongue, for he was of the race of Dale. (H)
He could watch mice scamper. (T)
But the little turtle kept on looking. (T)
He tried living in the forest. (T)



1. And he picked him up and carried down a
shady path. (T)
Suddenly, she had drawn aside his loincloth
to continue her ministrations. (C)
After a time, Edwina helped him to his feet.
(C)



2. Perspiration broke out on his brow...(C)
...and his final assailant's head rolled away
after her departing sisters (C)
The black arrow sped straight from the string,
straight for the hollow...(H)
Early one morning, the little turtle started out.
(T)
Unafraid, it perched by his ear... (H)
Men with steam shovels and bulldozers were
working in the clover fields. (T)

DISPERSED TRANSITIVES

1-two participants

2-single participant

P/T Complex: 1--two Points, directed Trajectory+path

2--one Point, directed Trajectory+path

Syntax: specified across clause plus phrase

Semantics: 1--Effector/Affected

2--Effector OR Affected

Discourse: Constrained Perspectival Distance
(close-focus)

CHAPTER THREE TOWARDS A MULTI-VARIABLE DISCOURSE MODEL OF TRANSITIVITY IN ENGLISH

3.1 Opening Remarks

Transitivity has long been labeled a complex phenomenon. Indeed, Chapter Two demonstrated as much at the clause level. The transitivity system is sensitive to the conceptualization of events, the dynamics of participant semantics, and the communicative intent of the speaker.

The discourse functioning of transitivity is no less complex, though this complexity arises more from the interaction of several elements than through the quality of transitivity alone. That is, just as identifying the semantic responsibilities of the transitivity system entailed teasing out that which properly belongs to "transitivity" and that which is part of a different system (tense, for instance), the discourse functioning of transitivity requires the same discriminating eye. DuBois makes a similar claim: sometimes choosing an "intransitive" was a matter of meaning, sometimes a matter of discourse (1987:831-832). The same can be said of the transitivity system in general. Care must therefore be taken not to become too absolute in the assigning of a "function" to any particular transitive clause. Sometimes a telic transitive is just a telic transitive. It is only in combination with other discourse elements that transitivity makes its contribution to the clause as a whole, and by extension, to the discourse needs of speakers and hearers.

Nevertheless, there is a discourse function specific to transitivity: **the management of perspective for the purposes of thematic coherence**. Several aspects of this statement must be considered. First, what is "perspective" and what relationship/s does it have to other levels of grammar? Second, what about perspective is being "managed" and to what effect? Finally, what specific role does perspective management play for the purposes of thematic

coherence? To begin this discussion, we must start with "thematic coherence" since, at the level of discourse, this is the ultimate purpose transitivity serves.

3.1.1 Thematic Coherence

Coherence is intuitively understood as the degree of relevance the concepts and relationships in a text have with regard to one another which permits plausible inference to be made about underlying meaning (Crystal, 1987:119). Hence, the content of any given clause should support what has gone before, add to it, and help predict what is to come next. A good deal of the research in discourse on topicality, for example, investigates the structural cues by which predictability and continuity are created.

Givón gives a somewhat different structural definition of coherence (1995:327): "The paragraph (or clause-chain) boundary in discourse [is]...where all types of discontinuity cluster--discontinuities of reference, spatiality, temporality, aspectuality, modality, perspective, etc. Taken together, they are the visible, measurable manifestations of a single epiphenomenon--thematic coherence."

According to Givón's definition, thematic coherence is understood by language users at the beginning or endpoint of a sequence of utterances. His claim is quite specific-- we process coherence at the level of discourse through discontinuity as opposed to cohesion. Cohesion is the clause-to-clause link which tells the hearer that this stretch of discourse still belongs together. When cohesion breaks--is made discontinuous--the hearer understands that a new thematic block is beginning. This is a highly testable claim and one which the transitivity system by and large supports.

The function proposed for transitivity is that it manages perspective for the purpose of thematic coherence, and by inference, for the purposes of cohesion. It seems, as will be shown throughout the chapter, that transitivity at the level of discourse provides a site for the management of perspective and, as a clause-level system, contributes to both cohesion and coherence. This cohesion is not created through linking the transitivity of one clause to another, nor by linking even one transitive clause type to another. The transitivity of any given clause doesn't "predict" the transitivity of the following clause so much as it predicts the perspective

from which the following clause may be viewed. Transitivity as a semantic system is about the whole of cognitive events; transitivity at the level of discourse is about the endpoints of events. Thus my conception of how transitivity works in discourse is similar to what DuBois claims for Preferred Argument Structure: it is not a discourse structure, per se, but a discourse preference for syntactic structure (1987:823).

3.1.2 Perspective

The notion that transitivity encodes perspective, or something like it, is not new. Rice (1987) states as much in a variety of ways—"At heart, transitivity is a linguistic device optionally employed by a speaker to conceptualize and organize the actions of entities in the world in order to convey a certain attitude about an overall event to someone else" (p.5), "transitivity is...a function of a speaker's evaluation of an event" (p.36), and "...transitivity is as much a function of the content of the event being described as it is of the describer's interpretation of that event" (p.38). Hopper and Thompson (1980) make a similar claim when they associate transitivity and foregrounding, particularly as their claim relates to "felic predicates"—those that are bounded by tense and participants into a single, "whole" event.

Berman and Slobin (1984) provide the most detailed model of clause-level discourse negotiation in narrative with their four dimensions of event construal. Briefly, event construal includes the selection of topic, selection of loci of control and effect, selection of event view, and selection of degree of agency. Selection of topic is essentially the selection of who or what the clause will be about. Selection of loci of control and effect is the selection of who or what is actor and undergoer. Berman and Slobin point out, much as Kemmer does, that the topic need not be the actor; these two choices are distinct. The topic can be either actor or undergoer (in my terms, Effector or Affected). Selection of event view is the choice of the event-participant relationship (Cause, Become, State). And selection of agency is how much "motivation loading" the entire scene is given. To some extent, selection of agency corresponds to my discussion of asymmetry as it pertains to slanting towards the Effector or Affected participant. These four dimensions act together in the construction of a clause and have a subsequent effect on what can follow in discourse. If there is a fault in Berman and Slobin's approach, it is their total

reliance on semantic parameters with little to no explanation for the structural elements which link clauses. My approach attempts to fill in this gap.

I claimed in Chapter Two that transitivity is the system underlying "event view," which Berman and Slobin designate with three views Cause, Become, and State. Here, I am proposing to operationalize what is meant by the attitude, interpretation, or selectional affect of transitivity. Simply put, the particular transitive clause type chosen frees up or constrains the **participant perspective** available in the subsequent clause. In other words, perspective here is not a loosely defined or intuitive notion but is actually constrained to **participant** points of view. As we shall see, each of the four clause types of transitivity in English has certain freeing or constraining effects as it interacts with other discourse dimensions (similar to, but not the same as, Berman and Slobin's). But these effects are limited to predictions about participants.

3.1.3 Management of Perspective

According to above discussion, what is being "managed" is the availability of perspective through participants. Availability in this case encompasses both anaphoric and cataphoric signals. Anaphorically, for a participant to be recognized as thematically continuous, it must already be established in discourse and marked accordingly. Cataphorically, for a participant to be expected to continue, it must be cast in a grammatical form that hearers know mark thematic importance. In either case, the form some participant takes opens up, closes down, or maintains the hearer's interpretation that this participant is thematically important.

There are two widely recognized means by which availability is managed. First is the nominal form the participant takes. Whether something is fully specified or pronominalized, definite or indefinite, specific or generic gives critical information to the hearer as to the thematic importance of the participant. The second strategy is clause structure. Participants in main clauses tend to be more thematic than those in subordinate clauses. Subjects tend to be more thematic than objects. For the management of perspective via transitivity, both of these strategies work together with the four clause types to form stable implicatures by which the hearer may infer which participants and/or events are likely to continue. As we shall see below, intransitives provide the least discourse constraint, atelic and dispersed provide the greatest

constraint, and telic transitives provide a middle ground by establishing a limited yet robust choice of viable participants.

3.1.4 The Model in Brief

When discussing thematic coherence above, Givón offered several structural means by which thematic coherence is established: aspectuality, spatiality, temporality, referentiality, perspective, and so on. He also goes on to warn discourse researchers to keep in mind that the visible elements encountered are but heuristic measures through which the unseen, theoretical-cognitive entity—thematic coherence—is known. It is in this spirit the following model is offered. The particular play of transitivity in English is not itself a universal; at this point, I cannot even claim typological ramifications. Rather, transitivity as a system instantiated through the four clause types has a function which serves the needs of thematic coherence. Specifically, transitivity provides a grammatical-semantic site over which the construal of perspective may take place. In English, it is the primary clause-level system through which participants are introduced, maintained, or removed from narrative discourse.

Nonetheless, given the nature of transitivity as a semantic system, it is hardly mysterious that it should fulfill the duty of perspective manager at the level of discourse. After all, it is the transitivity system which takes care of the number of participants and their event-driven relationships. Nor does transitivity, as we shall soon see, act alone. At least three other discourse elements conspire with transitivity for the purposes of thematic coherence. They are treated as part of a "multi-variable model of transitivity in discourse" because, in use, it is rather difficult to separate them from one another.

The four discourse elements to be considered are:

- (1) the relative discourse topicality of the participants of a given clause;
- (2) perspectival distance;
- (3) the four clause types of transitivity;
- (4) the "depth" of transitivity given discourse context.

The first element, discourse topicality, assesses how hearers know the topical status of a given participant. Two factors must be taken into account here, referential specificity and information value. The first is my term for the degree of referentiality accorded a participant.

Traditionally, we understand this as a continuum from full lexicalization to zero anaphor, indefinite to definite. For discourse, the degree of referentiality specified for a participant relative to surrounding participants is a crucial indicator of thematic importance. In a telic transitive, for instance, the referential specificity of each participant vis-à-vis the other tells the hearer which participant will likely continue as topic, hence whose perspective is available for comment.

Information value is a more global term, encompassing but not limited to referential specificity. It was introduced by Chu (1996:5) to explain topic chaining, overt and zero anaphor, and word order in Chinese. Basically, Chu distinguishes topichood as operating across two information structure tiers, the source tier and the management tier. The source tier "is concerned with where a piece of information comes from" and functions to signal relative givenness and newness to discourse. The information management tier "...is concerned with how a linguistic form is used in terms of informative value". The management tier incorporates a scale from High value to Low value. As will be shown, it is the effects of discourse topicality on the management tier which works with transitivity to manage perspective.

The second discourse element, perspectival distance, is the "ground" against which transitivity is "figured." That is, since Hopper and Thompson's influential 1980 paper, much has been said in support of their notion that High transitivity (my telic transitives) communicate foregrounded information. Most often "foregrounded information" has been interpreted to mean information on the narrative time-line--information which advances the story forward. A few researchers, notably Kalmar (1982) have argued otherwise, claiming that where high transitivity may correlate with time line information, it cannot be said that this is the only foregrounded information in the text. Some other explanation must be sought.

My answer to this question is "perspectival distance." This is a notion introduced by Talmy (1993,1996) but used intuitively by many discourse linguists with the reference to the "camera" effects of clause structure. Perspectival distance refers to the distance from a scene or event created by a particular linguistic construct. A more distant perspective is created via more inclusive and indefinite nouns with more stative verbs. A closer distance is created with more

specific nouns and more active verbs. In narrative, the closest distance is direct speech where participants are most immediately engaged with one another.

As will be shown, perspectival distance provides a better measure of the narrative structure to which transitivity relates. Each of the clause types suggests a range of perspectival distance. Cognitively, this range constrains what can happen next by creating boundaries around the scene thereby limiting the number of potential subsequent actions. At the furthest point, instantiated by intransitives, perspectival distance is constrained fairly little; it serves more a framing function, suggesting the general direction participants might go given the schematic knowledge aroused by the scene. Telic transitives are at a "basic" distance, one encompassing both participants and the event joining them, but excluding surrounding participants. Atelic and dispersed correspond with a fairly close perspectival distance, where only one participant "fills the screen" and time segments are shorter. Thus, it is distance from the event and the discourse implications therein that transitivity realizes, rather than points on the time-line itself.

The third element of the model, the four clause types, takes into account the previous two. This section gives a fuller explanation of the four clause types and the kind of perspective-taking they entail. This section takes both a qualitative and quantitative approach in an attempt to get a feel for the discourse patterning of the four clause types in English narrative.

The fourth element investigates what transitivity and its alternations mean at the level of discourse. I am proposing here that discourse puts considerable constraints on the kind of perspective shifting allowed. Thus, where a telic transitive clause out of context may be fully capable of passivizing, in context, there are allowed and disallowed instances. When alterations are permitted, I call this "deep transitivity": perspective-shifting which is allowed from the level of discourse down through both semantics and syntax. "Shallow transitivity" is when shifting is not allowed and this has a variety of underlying causes. One final note: in this chapter, examples which are my own are presented in the same font as the main text. Other authors are presented in an alternative font-type.

3.2 Discourse Topicality

The question of topicality is widely discussed in the linguistics literature. And while an intuitive or notional definition is still theoretically unsatisfying, it is not entirely erroneous given the nature of topicality itself. Like "thematic coherence," topicality is largely an invisible entity, a "felt" understanding which evolves as the speaker and hearer negotiate text. Certainly, topicality has its visible, measurable markers (pronouns, zero anaphora, topic-chains, etc.) but these are the overt, linguistic clues to the unseen cognitive entity. Most importantly, topicality functions as an anchor within text; only within an understood frame of reference can coherent communication take place. At the discourse level, topics establish boundaries by eliminating other possible topics and together with general knowledge arouse sets of expectations on the hearer's part onto which information is pegged. (For an excellent discussion of approaches to topicality, see Goutsos, 1997.)

Intuitively speaking, topicality is the quality of being "about" something, wherein the speaker has established a discourse within which some particular participant, event, or scene is understood by the hearer to be referred to and/or is expected to continue. Topicality is established through repeat reference to wholes and to parts of participants, events, or scenes. Discourse topics are most often established through reference to parts. The hearer has an expectation of what is going on--a schema or script--and the hearer's understanding of the speaker's actual discourse topic is created through the negotiation of expectation based on the schematic knowledge and speaker's actual linguistic cues. Thus, essentially, it is a matter of inference. In this case, not merely inference, but stable linguistic inference--an expected and normal part of linguistic competence--hence a matter of implicature.

Topicality has three measurable levels, the clause-level, paragraph or inter-clausal level, and the discourse level, yet these three levels are not often distinguished in the literature. Most often, "topic" is defined at the clause-level with the somewhat unenlightening phrase "what the sentence is about," including descriptors such as the initial element in the sentence, the proposition about which the speaker is providing more information, or the given elements of the utterance (Chu, 1983; Gundel, 1988). More satisfying definitions were offered by Chu (1983),

Prince (1981), Chafe (1994), etc. who defined topic in terms of its cognitive status in the discourse: "Semantically, a topic is definite in the sense that it has to be a *particular* entity or event that has already occupied the mind of the speaker and hearer" (Chu, 1983:132). Prince and Chafe developed models of "activation states" to account for the variety of definite noun phrases that occur in discourse, including those that the original conceptions of topic could not account for: *I saw a new house today, but I didn't like the kitchen. It was too small/ I saw a new house today, but I didn't like the neighborhood. It was too crowded/ I wanted to see houses today, but the realtor wasn't feeling well. We have to schedule for next week.* In each of these sentences, the conjunct clause contains a noun phrase which is new to the discourse, occurs in the site of new information, but is definite and the topic of the next sentence. Prince explains this through types of inference wherein any nominal excites a field of related terms which are allowed into the discourse without explicit previous mention. The nominals are all inferable from various kinds of pragmatic knowledge. More recently, Prince has proposed discourse-based degrees of givenness from the perspective of hearer-discourse interaction (1992, summarized in Chu, 1996):

Hearer	Discourse	
old	old	already evoked
old	new	has not been evoked; speaker believes it's old to hearer
new	new	has not been evoked; speaker believes it's new to hearer
new	old	has been evoked; speaker believes hearer is not aware of it

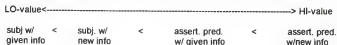
Prince's proposals together have the advantage of covering at least two sources of discourse information, semantic/pragmatic and discourse-negotiated.

Other distinctions created in discussions of topic include such categories as discourse topic versus sentence topic. Where Ochs, Keenan, and Schefflin explicitly identify their topic as a discourse topic, Lambrecht (1994) claims his discussion is of a sentence topic and is to explicitly contrast the "focus" of the sentence, which is the new information. But what linguistic features actually distinguish a "discourse topic" from a sentential topic? Givón claims the distinction is quantitative in nature "...the main behavioral manifestation of important topics in

discourse is **continuity**, as expressed by **frequency** of occurrence (1984:138). For example, pronominalization is a direct indication of activation status in discourse; whatever is pronominalized must be known to both speaker and hearer already. However, this does not much help in determining topicality in discourses where there are multiple participants. Nor does it provide a means to distinguish a discourse topic from a sentential topic since that which is sententially frequent is also important to the discourse.

Chu (1996:5) provides a better explanation of the distinction by proposing instead two information tiers with different discourse functions, the source tier and the management tier. "The source tier is concerned with where a piece of information comes from while the management tier is concerned with how a linguistic form is used in terms of informative value". For Chu, then, the previous definitions of topic in terms of cognitive activation status are explanations of the source tier—where the information comes from. Givón and Lambrecht's propositions discuss topic from the perspective of management, what happens to information once introduced into the discourse.

Another difficulty with Lambrecht's contrast of topic and focus is the conflict arising when a topical noun receives focal stress as in "*Who left the dishes on the coffee table? Your father, of course!*" It would be absurd to claim that "your father" is not a known element. At the same time, the phrase is clearly the focus element, the "new" information insofar as it is the answer to the question. Chu (1996:5) also provides an answer to this dilemma by proposing that topic be understood not simply in terms of given and new information, but functionally as high or low information value: "A better way to interpret it is whether and to what extent a linguistic form serves to add information to what has already existed in the repertoire of the hearer/reader". Chu further proposes that high informative value and low informative value (hereafter, HI-value and LO-value, respectively) represent a cline of values, not a binary opposition:



The discrimination of a source tier and management tier significantly impacts our understanding of topichood. Much of the work that has been done on sentence-level topics has dealt with the source tier; and much of the work on that tier has been aimed towards understanding how various discourse markers such as definiteness are used with "new" nominals. Chu brings to the table another aspect of discourse structure, the information value of any given nominal. This concept focuses not on where information comes from, but how it is used, "managed," in discourse. Further, "information value" allows us to operationalize the impact of any given nominal by defining "new" information or "focus" as any information which adds to or amends the state of knowledge of the hearer. Thus, what is "new" in terms of its source does not have to be high in information value, nor is what is given necessarily low in information value.

It quickly becomes evident that "source" and "management" work together. In English, it has been traditionally claimed that given/new distinctions are associated with the subject and object positions, respectively. When a nominal occurs in the subject position, it is considered to be the sentential topic, and by definition known to speaker and hearer. By contrast, the nominal in the object position is the "focus" because it is part of the asserted information. These correlations hold in default cases; that is, if they are not otherwise challenged. Complications do arise when texts are investigated.

(1) Uttering a curse in his well-practiced falsetto, Cora swung his blade
and cut down the opposing swordswoman

"Lady of Steel," Roger Zelazny

(2) She came into my shop with a gash in her thigh and blood seeping
out a wound in her stomach

"Bra Melting," Janni Lee Simmer

(3) "But you don't tax jockstraps!" Mirabel Stoncfist glared.

"And the Ladies of the Club," Elizabeth Moon

Each of the texts above not only introduces a new participant, but is the first line of the story. In fact, it is not unusual to begin a short story in English with the introduction of a new participant

rather than a scene-setting. In these cases, the first appearance of a nominal in the text is also its first use. Just as givenness alone does not determine information value (information value is determined by use), neither does the grammatical role determine information value.

In these three excerpts, the new participant is in the subject slot, the site of "given" information. As stated above, it is also the site of topical information. In other words, one way of introducing a topical participant into the discourse is to place them in the subject slot, thereby indicating to the reader the relative importance of the participant. It's as though the participant is simultaneously being flagged as "new" and "given" at the same time; in fact what is happening is the participant is being flagged as "new" and "topical" at the same time. In terms of source, the participant is brand-new; in terms of management, the participant is high in information value.

At the same time, not all participants making their first appearance in the object position of the asserted predicate are HI-value; in fact, many are not. In the Zelazny text, the second "participant" occurs in the site most frequently associated with High information value: Cora swung his blade and cut down the opposing swordswoman. According to Chu's management continuum, this is typically the position of HI-value participants. However, according to Prince's "source" categories, this participant is contextually inferable. We rather expect as readers that anyone uttering curses in a well-practiced voice while swinging blades is most likely cutting down an opponent (as opposed to cutting down trees, for example). That it is a swordswoman is interesting, but does not hold our attention; though marked with the definite article, the swordswoman is not mentioned by name, is not specified for the reader. If instead the sentence read *Cora swung his blade and cut down the opposing swordswoman, Hilda* we would be disturbed as readers when the following sentence began with "His contoured breastplate" referring back to Cora (rather than to Hilda).

We need to explain why participants new to the discourse and subsequently topical may be used in the subject position when first introduced. And likewise, why participants in the object slot, such as *the opposing swordswoman*, are not topical. It's obviously inadequate to label subject and object positions as merely slots for old and new information respectively. Rather, there is a collocation of functions for each position which serve to designate information value.

These include referentiality, action schemata, and perspectival distance. (Perspectival distance will be taken up in greater detail in the following section. Suffice to say here that you should find low occurrences of "close focus" constructions with new participants unless placed within highly recognized activities, such as the conversation in (3).)

Givón (1995:379) states much the same thing: "The grammatical subject, the clause's primary topic, code the event participant that is most continuous--both *anaphorically* and *cataphorically*" (emphasis added). Subjects tend to have greater continuity, greater topicality, head action chains, and have lower information value. Objects tend to have less referential distance and less topicality but are receivers of action and also tend to have higher information value. English has worked out a system where participants are referentially coded apart from grammatical position so that the semantics of an event can play itself out unhampered. I call this system "referential specificity." Essentially, given two participants, whichever one has a stronger degree of referentiality is regarded as topical. Degrees of referentiality are assessed on two scales, the definiteness hierarchy from zero anaphor to generic and the animacy hierarchy.

DEFINITENESS: zero --> I/you --> proper noun --> definite --> indefinite --> generic

ANIMACY: human --> self-instigating animate --> non-self-instigating animate --> inanimate

(4) A headache the size of her healthcare plan--no, better make that the national deficit--was turning Hillary Rodham Clinton's skull into the local percussion section.

"Exchange Program," Susan Schwartz

(5) It was shortly after Mrs. Batchett left the planetarium that she saw the fairy, the elf, and the gnome.

"On the Road of Silver," Mark Bourne

In (4), the two scales work together. A *headache*, although the Effector, is clearly not the thematically important participant, for two reasons. First, it is lower in referential specificity (hereafter, RS) than the second participant--a proper name is higher on the definiteness scale than an indefinite. Second, it is inanimate and non-human whereas the object is human. Also, 'Hillary Rodham Clinton' is a well-known figure and is occurring in the site typically associated

with High information value. Contrast this sentence with (1), from "Cora." In this opener, the subject of the sentence is the Effector—the most unmarked of action chains—and is named by a proper name. The object, while also human and strongly Affected is not named, but referred to via a definite descriptive noun phrase. Because the Affected participant has a lower RS than the Effector, the tendency for the object to become the subsequent clausal topic is overruled. Note that the author could have chosen a combination of atelic transitive and a subordinate clause, thereby eliminating the coding competition for topic (generally speaking, subordination is a stronger discourse factor in backgrounding): *Uttering a curse in his well-practiced falsetto, Cora swing his blade forcefully, cutting down the opposing swordswoman.* In this sentence, there is no competition for clause-level topic and no need for RS as a deciding discourse factor.

Example (5) combines an interesting mix of definiteness and clause structure to cue the reader in on who the topical participants are. Obviously, *Mrs. Batchett* is the prime candidate for immediate sentential topic because she is both in the subject position and of higher RS than the other participants mentioned. On the other hand, the *if* in the opening phrase *if it was shortly after Mrs. Batchett left* sets up the reader to expect the situation the pronoun obliquely refers to. As a result, although the reader knows that *Mrs. Batchett* is immediately the most important character, the definite form of the other participants together with the oblique reference at the very beginning of the story alludes to the later importance of *the fairy*, *the gnome*, and *the elf*. In fact, these three do play significant roles later in the narrative.

Sentence topics, which can be either events or participants, are also established through repeat reference to their wholes or parts. Further, it is at the level of the sentence that referential specificity plays a part in the setting up of hearer's expectations about what is coming next. Basically, given two participants, whichever has the highest referential specificity is expected to continue. If both are of equal value, the participant in the object slot is more likely to be topic in the next sentence because the object is the site of higher information value. However, if both participants are already established in discourse, then it could be either participant or the event which gets topicalized for the next sentence.

Finally, the various discourse effects of subject and object, given and new, referential specificity, and high and low information value all act together to form the "discontinuities" Givón refers to as marking thematic boundaries. When the above factors combine to counter reader expectations, this is also a signal that a juncture has occurred. The chart below summarizes these effects. Subject and object are crossed by given/new and higher or lower RS. These result in information values which then signal various states of thematic continuity and coherence.

	GIVEN/ NEW	HIGHER RS/ LOWER RS	HI-VALUE/ LO-VALUE
SUBJECT	NEW	HIGHER RS	Hi-Value -- "discontinuity" -- discourse juncture
	GIVEN	LOWER RS	LO-Value -- "continuity" -- thematically established
OBJECT	NEW	HIGHER RS	Hi-Value -- "discontinuity" -- new clausal topic
	GIVEN	LOWER RS	LO-Value -- "continuity" -- est topic continues

Figure 3.1: Referential Specificity, Information Value, and Grammatical Relations

If the subject is new and has a higher RS than the object, then it also has higher information value and is likely occurring at a discourse juncture (a new paragraph, for instance).

3.3 Perspectival Distance

We've already seen that the narrative time-line is structurally a matter of implicature rather than a linguistic entity in its own right. We also have shown that events on the time-line do not have to be telic transitives, but may be atelic and dispersed transitives as well. Yet, there is certainly evidence indicating that there are textual interactions between transitivity and narrative. If neither time-line or plot-line are sufficient guides, what else could account for the regularities observed so far?

Talmy (1994) offers a possibility with his notion of perspectival distance. In essence, Talmy shows that regularities in certain transformations are most easily explained as a matter of implied/perceived distance from the event. The further "away" from an event a linguistic

description is cast, the less detail of the event is implied in the description. The "closer" the linguistic depiction is, the more detail is implied. For example, the following sentences can be understood not simply as aspectual distinctions, but as a matter of distance from the event.

- (6) There was a cat and dog running down the sidewalk.
- (7) The cat ran after/chased the dog.
- (8) The dog fled.

In (6), the perspectival distance is far away, what I term a "panoramic view." Essentially, an event is construed as a state; the distance is so far away that the action itself is seen as an entire picture, a framed Point-Trajectory complex, rather than as movement from one endpoint to another. From the point of view of discourse, just about anything can follow this kind of sentence as long as it stays within the very loose constraints imposed by the overall action—in this scene, that of a neighborhood.

- (9) There was a dog and cat running down the sidewalk, children swinging in backyard playgrounds, and a light playful breeze nipping at the leaves and swishing little girls' ponytails this way and that.
- (10) There was a dog and cat running down the sidewalk. I opened the door slowly, peeking out again to make sure the coast was clear.
- (11) There was a dog and cat running down the sidewalk. Without warning, a bomb ripped the morning's peace to shreds. No more dog. No more cat. No more sidewalk.

The perspectival distance in (7) is what I term "basic." Similar to Lakoff's notion of basic level terms, this is the sort of sentence most often given when someone asks for an example sentence. There are two endpoints and a trajectory given, but instead of being framed from a distance, they are framed at the level just enclosing the activity and participants. Often, additional information is excluded at the level of the clause; if there is additional information about direction and such, it has a much more "adjunct" interpretation. This is also the level at which discourse constraints begin to assert themselves. This example includes an Effector and Affected with equal referential specificity engaged in a purposeful, unilateral activity. It is NOT the case that just anything may follow this statement. Rather, as will be discussed in the next section, we expect that the Effector, Affected, or Predication will follow. This is considerably more constraint than the panoramic view entailed.

- (12) The cat chased the dog. The dog scrambled down the sidewalk, yelping in despair.
- (13) The cat chased the dog down the sidewalk. It meowled fiercely as it closed in on the hapless Rottweiler.
- (14) The cat chased the dog down the sidewalk. But it was a humid day with a baking sun, and the chase ended as quickly as it began.
- (15) ? The cat chased the dog. The earth tilted slightly on its axis and a car backfired in Detroit.

The final perspectival distance I call "close-focus." Essentially, it is as though the linguistic camera were directly on top of the scene with only a single participant filling the lens. Time sequence here is very short, a matter of moment-to-moment experience. Discourse constraints are strong, limited to participants only. Further, only participants set up by discourse frames or directly entailed by the predicates chosen are allowed. Narratively, close-focus is often experienced as fast-paced, action-filled, tense, and dramatic sequences of central importance to the plot. Also, note that with (7), the verb "fled" implies something from which the dog is fleeing and potentially, something to which the dog flees.

- (16) The dog fled. It ran faster and faster until it escaped the cat.
- (17) The dog fled. The cat leaped. The dog snarled in fury as the feline landed on its back. Raising a pad of extended claws, the cat went to scratch, but too slowly! With a snap, the dog chomped the proffered paw. And that is how the neighborhood tabby became known as Tripod Tom.
- (18) ? The dog fled. The sun rose. Sally baked chocolate chip cookies for breakfast.

It is obvious at this point that there is a connection between perspectival distance and transitivity. Panoramic views correlate with intransitives, basic views with telic transitives, and close-focus with atelic and dispersed transitives. While I am not ready to claim that transitivity is the encoding of events vis-à-vis linguistic space (as does Langacker, for instance), it is clear that at the level of discourse, narrative structure can easily be visualized as a matter of distance from events. The narrative introduction, particularly in longer works, usually begins at a panoramic distance describing the general scene. Thematic participants and events are introduced through actions while the narrative proceeds to climactic moments. These are often construed as close-focus scenes, with all the reader's attention taken up with actions and events portrayed moment-by-moment. The denouement goes back through the basic level to the panoramic as the scene

or story winds down to a point of resolution. In a novel, this pattern repeats itself again and again. It is violated to great effect in multi-participant stories where each chapter focuses on a single thematic character and the middle chapters of the book end in cliffhangers until all the participants can be brought together in a final resolution.

There is a fourth level of narrative distance I call "immediate." This is the domain of direct and indirect speech. These two, particularly the former, are the most cognitively involving aspects of narrative, even though presented in past tense morphology (s/he "said.") Direct speech has a sense of being close to the present moment, as though the reader were sitting very near the participants. This may be why in spoken narrative, direct speech so often happens in the historical present. There is considerable debate about whether direct speech should be considered a transitive event (see Longacre, 1983). While it is possible to passivize speech statements (using "was said by him/her" instead of "s/he said"), it is rarely used in practice. Further, there is better evidence cross-linguistically that direct and indirect speech forms are formulaic and thus distinct from grammar. I agree that direct and indirect speech are "different" on several linguistic accounts and probably should not be considered as telic ditransitive events (passivization implies the rather odd notion that speech is a physical object given to another participant). As a speech act, direct and indirect speech match up with atelic transitives which feature a single participant at an extremely close distance. Suffice to say at this point that direct and indirect speech present a problem this project does not solve. They will not be considered in the data as events coded by the transitivity system, but as speech acts with cultural expectations that go along with them. These expectations may interact with transitivity or they may not.

At this level of discourse, it must be remembered that patterns are correlations. In other words, telic transitives do not mean "basic level perspectival distance." They mean an event encoded to include both points and the trajectory in a single linguistic unit. The appropriate way to view this matter is from the perspective of the largest structural unit, the narrative itself. Narrative structure has a format and induces a set of reader expectations. The author has at his or her disposal all of the lexical and grammatical options of the language they are writing in. Certain of these options better fulfill the structural requirements of narrative at its various points.

But as long as the narrative expectations are fulfilled, there is relatively little constraint as to which option the author chooses. This is, more or less, a linguistic definition of style. It also helps account for why statistical analyses are useful at the level of discourse. Given a particular point in a narrative, there is approximately a 70-80% chance of finding structure X. There is a 20-30% likelihood of finding structure Y or Z since both fulfill the structural need in question. It is simply a matter of conventional expectation and style that determine X, Y, or Z.

Nevertheless, at some point it becomes a "chicken-and-egg question" to ask whether some given grammatical structure "has" some given discourse function or whether discourse "makes use" of the semantic/pragmatic potentialities inherent to any grammatical construction. The whole question is most likely wrong. It is not a matter of what comes first, but a matter of linguistic ecology. Grammar and discourse have a relationship and to suppose either is more fundamental is erroneous.

In conclusion, if we separate perspectival distance from time line, and associate transitivity with the former, we get a more accurate picture of what transitivity accomplishes in narrative. The time-line is essentially a structural artifact of narrative, created through implicature by the tense-aspect configurations of successive predications. Perspectival distance is the linguistic boundaries imposed on a scene at any point in narrative. Transitivity is one linguistic system available to the speaker for this purpose. The specifics of how transitivity works to fulfill this function will be taken up in the following section.

3.4 The Four Clause Types of Transitivity

It was claimed in Chapter Two that Endpoint-Trajectory (hereafter P/T) relationships are expressed by four basic grammatical types in English—intransitive, atelic transitive, telic transitive, and dispersed transitive (with the caveat that intransitives may be more properly understood as durative, unbounded actions, and states should be considered a semantic/conceptual case in their own right). This chapter proposes that the discourse function of P/T relationships is the control of communicative intent through manipulation of perspective. Simply put, perspective is the participant-event relationship as it operates at the level of discourse. In terms of grammar, perspective is understood to be the grammatically available

points of view from which a scene/event may be construed. For English, there are three basic points of view: the Initiating Point, the Ending Point, and the Trajectory itself. Semantically, these correspond to the Effector, Affected, and Predication, respectively. In terms of clause structure, the three points of view get played out in the four clause types of transitivity.

For discourse, perspective-taking opens up or closes down participant availability. That is, given context and transitivity, regular predictions can be made about who or what is coming next in a text. Each of the clause types of transitivity interact with discourse topicality and perspectival distance to form the part of the implicatures we recognize as thematic coherence.

3.4.1 Telic Transitives

At the level of discourse, the particular P/T configuration lets the reader know who is available for perspective shifts or changes. The choice of a configuration either opens up or limits what can come next. In the broadest sense, given a telic transitive, there are three basic perspectives that can be appealed to: Effector, Affected, and Predication. In the following example, the subsequent sentence can topicalize the Effector, Affected, or even the action itself. Further, for the last option, the sentence can be skewed towards the Effector or Affected participant or simply comment on the action itself.

- | | | |
|------|--|---------------|
| (19) | John kicked Bill. He punched Bill/him. | (Effector) |
| (20) | John kicked Bill. Bill yelled in pain. | (Affected) |
| (21) | John kicked Bill. It was a really hard kick. | (Predication) |
| | The kick really hurt. | (Affected) |
| | The kick was really hard. | (Effector) |

Even these simple sentences show some interesting things regarding reader expectation. With sentence (19), where both Effector and Affected have equal referential specificity (hereafter, RS), it is somewhat awkward to continue the Effector role as topic without additional maneuverings. Note the sentence reads better if temporal adverbs are added in.

- (22) First, John kicked Bill. Next, he punched him.

As stated in the discussion of discourse topicality, if both Effector and Affected are of equal referential value, the Affected role generally wins the role of topic because of the association of new information with the object slot. Thus in (19), despite the fact that according to sheer

transitivity both participants and the action are available for topicalization, the likelihood is tipped away from the Effector role. If the Effector is to continue as topic, then the balance must be re-shifted somehow. This can be partially done through pronominalization, though with an activity of such violent energy, pronominalization alone doesn't quite work; the two sentences still don't "flow." Coherence is better accomplished here through temporal adverbs which make salient the linear aspect of the activity. In other words, once the reader knows that John "first" did something, the reader expects to know what John did next. Adverbs impose an overt temporal/spatial structure on a text, creating strong expectations about what will follow.

The second example, with the Affected taking the topic role, is the most straightforward and unmarked of the options. Effector and Affected have equal RS and the Affected participant is the site of highest information value. This role is allowed just about any kind of response, though; new information is not confined to nominals.

- (22) John kicked Bill. Bill yelped in pain.
- (23) John kicked Bill. Bill yelped in pain, then kicked him back.
- (24) John kicked Bill. Yelping in pain, Bill kicked him back.
- (25) John kicked Bill. Bill slugged him.
- (26) John kicked Bill. Bill started to cry.
- (27) John kicked Bill. Bill stared at him in astonishment.

Obviously, we are confined to our expectations of the scene, the action schemata, a factor essential to coherence.

- (28) ?John kicked Bill. Bill painted flowers.

As a testament to our desire for coherence, many readers of this sentence unconsciously assert some sort of modifier to make coherence kick in:

- (29) John kicked Bill. Bill continued painting flowers.

The addition of "continued" makes the proposition refer back to a previous state which had been interrupted by John's kick. Even though we don't know what this state is exactly, we are satisfied that the sentence "makes sense."

The final option that a telic transitive allows is some comment on the Predication itself. In this case, the term "Predication" includes the whole of what the scene implies. Thus, given

any particular activity, subparts of the activity are available as well as the whole of the activity itself.

John kicked Bill.

(30) The kick was really hard.

(31) it really hurt.

(32) It was a really hard kick.

(33) His foot made hard contact with Bill's shin.

(34) His boot swung in a long arc toward Bill's leg.

(35) His pants nearly ripped with the effort.

Part of Activity/Skewing

whole/ Effector

whole/ Affected

whole/ Predication

subpart/ Effector

subpart/ Effector

subpart/ Effector

The sentences (33) -(35) show two things. First, what is available in terms of Predication is limited by the action itself and what the reader knows must be the case in the scene. But within that context, anything is fair game from some comment on the activity to the clothes the Effector is presumably wearing. Second, when referring to a subpart of the activity, it is very difficult to skew towards the Affected participant without first topicalizing that participant, or at least re-mentioning it. The energy of the activity flows from Effector to Affected and thus the subparts of the activity follow the same path. This is not true for the whole of the activity because by definition the trajectory in a telic transitive has both an Initiating Point and an Ending Point, hence both points are available semantically.

Narrative examples of the above points are as follows. In the first one, we see an example of a telic transitive followed by another telic with the Predication as the thematic participant of the sentence. The second excerpt shows the case of a telic followed by a clause in which the object has become the subsequent topic

Uttering a battle-cry in his well-practiced falsetto, Cora swung his blade and 0 cut down the opposing swordswoman. His contoured breastplate emphasized features which were not truly present.

"Cora." Roger Zelazny

Polyta stepped over to Colleen and 0 rubbed the dog's head for comfort. Colleen whined softly in response and 0 rubbed her cheek against the woman's thigh.

Manannan's Isle, L.S. O'Brien

Excerpt three is a good example of telic transitives working with information value to produce a text in which the anthropomorphized machines are cast as the villains. The third excerpt also shows the range of exceptions to which text is prone.

One morning a rumble like thunder woke the little turtle. Men with steam shovels and bulldozers were working in the clover fields. The machines pushed over trees. They dug up clover. They tore down hills and 0 filled up holes. The machines made so much noise that the turtle couldn't hear the birds or the frogs.

"Little Turtle's Big Adventure," David Lee Harrison

Here, the first sentence sports an indefinite subject acting as Effector on the established protagonist. The object, the little turtle, has low information value compared to the subject, which is indefinite, Effector, and occupying the site of thematic continuity. This combination fairly begs explanation and overwhelms RS as a deciding factor in participant topicality.

It is also interesting to note how similar in effect the semantics and pragmatics of this construction is to inverse marking in proximate-obviative languages. For example, in Cree, an Algonquian language, a third-person narrative must consistently mark proximate and obviative participants. Briefly, the proximate participant is the one whom the reader is intended to keep track of—it is the changes to the proximate participant which are of greatest concern. All other participant are morphologically tagged as obviative. Literarily, the obviative encompasses roles as diverse as "companion," "antagonist," and "narrative prop."

Pragmatically, there is also pressure put on the text to conflate "agent" and "proximate participant." When this is not possible because the proximate participant is being acted upon, special morphology is used to signal this: inverse markers. The inverse form is statistically rare and marks those sentences in which the pragmatics of the proximate-obviative distinction conflicts with the semantics of the event being communicated. Inevitably, these are points of high drama during which the proximate participant faces some great challenges to be resolved throughout the rest of the story.

English marks this kind of conflict as well, though not morphologically. Instead, various semantic and syntactic structures are used to "re-arrange" the reader's perception of who the "proximate" and "obviative" characters are. Semantically, this contrast is created through the

amounts and kinds of information given about a participant. The more the reader's knows about the character's motivations, intention, history, and reactions to a given event, the more likely that character is playing a "proximate" role. This is the literary protagonist; morphologically marked in Cree and notionally tagged in English. The antagonist or narrative props are those participants who act in an English narrative, but whose motivations, intentions, and history are less known. All in all, the "bad guy" is the least known character in an English narrative.

In the "Turtle" text, these relationships are being established in the first sentence. This is the second paragraph of the story and provides the motivating event for the conflict the protagonist must resolve. Grammatically, this sentence features a force working upon the protagonist. Now, it would have equally felicitous to have written the sentence *One morning the little turtle was awakened by a rumble like thunder*. There is no grammatical discontinuity whatsoever and the event of "waking up" is sufficiently familiar to children to ameliorate the effects of using a passive. But the pragmatic force of the sentence would be lost; the sentence as written succeeds in being dramatic and focal precisely because it flouts conventional expectations of participant relationships. Like the inverse construction in Cree, and indefinite Effector in English provides information on both the semantic and pragmatic levels of communication.

3.4.2 Atelic Transitives

Atelic transitives provide the most profound perspective shifts in that they present only one side of the story, so to speak. Functionally, atelic transitives are important for two reasons: (1) the introduction of new participants, especially in verbal narratives; (2) close-focus scenes when the action is presented in very small time periods.

In verbal narratives, DuBois (1987) demonstrates that one-place predicates occur for at least two reasons, the introduction of new protagonists and semantic necessity. He offers quantitative evidence from several studies to show that when speakers bring into a text a new protagonist—a participant who will continue thematically and from whose perspective some part of the tale is told—they do so overwhelmingly in one-place predicates. Other uses of one-place

predicates are dictated by semantic necessity, he claims. Speakers use them because they have the right meaning.

In written narrative, the patterns are somewhat different. First, new participants may be introduced into the text in any number of ways, though the most common are through telic transitives (where the second participant is of lower RS) and atelic transitives. The atelic transitive, though, embraces two possibilities. First, the classic scene-setting introduction which begins with a description of a place and narrows down to a statement about the central participant. This sort of introduction is the norm in novels and longer short stories, but is also found in truly "short" short stories as well. The second use is not exactly atelic--the use of opening conversation. In this case, as stated previously, it is difficult to know whether direct speech is telic, atelic, or neither. It is most definitely a case of **one-sided perspective** which is a feature of atelic transitives. Direct speech also strongly implies a second participant, someone who is being addressed. What we find with stories that have conversation as their opening lines is the same use of RS that we find in telic transitives. If one of the two conversationalists has a higher RS, that participant is interpreted as the topical participant (in narrative terms, the protagonist; but this is a limiting term since sometimes stories are about more than one person, and when this is the case, the story is "about" them both, or even about an unseen discourse topic). If they have equal RS, more of the story must take place to settle the difference. In some cases, the reader comes to find that both of the participants are topical, and some third character or some other event intervenes which confirms their equal role.

It is important to note at this point that I am not claiming that transitivity itself has anything to do with the setting of a protagonist through direct speech. Rather, the fact that conversation in narrative follows similar patterns as transitivity demonstrates that it is the discourse functioning of perspective that is the driving force. In both cases, conversation and clause structure, aspects of topicality are put to use in order to achieve thematic coherence.

"But you don't tax jockstraps!" **Mirabel** glared

"No," said the king. "They're a necessity."

"For you, maybe. How do you expect me to fight without my bronze bra?"

"Men can fight without them," the king said. "It's far more economical to hire men, anyway. Do you have any idea of what the extra armor for the women in my army costs? I commissioned a military cost-containment study, and my advisors said women's uniforms were always running over budget." The king smirked at the queen, on her throne a few feet away, and she smirked back. "I've always said the costs to society are too high if women leave their family and responsibilities--"

"We'll see about this," Mirabel said. She would like to have seen about it then and there, but the king's personal guards—all male this morning, she noticed—looked too alert.

"And the Ladies of the Club," Elizabeth Moon

The above text is the opening paragraphs of the story. Two things establish Mirabel's place as topical participant. First, she has highest RS; her proper name is used while both the king and queen, participants of greater social power than Mirabel's, are named only through definite reference. Second, Mirabel is grammatically topicalized in the final paragraph through repeated pronominal reference. The king, on the other hand, though he is the second conversationalist, never gets pronominalized and is consistently marked as a non-topical participant because of this.

The next examples are taken from the opening lines of *Star Trek: New Frontier*, a series of four novellas. All four books are related to one another not only by use of characters and setting, but through close chronology. The four smaller books are in essence one long story.

Book One, House of Cards

Falkar regarded the remains of his troops and, as the blazing Xenex sun beat down upon them, 0 decided to wax philosophical about the situation. "It is not uncommon to desire killing a teenager," he said. "However, it is not often that one feels the need to send soldiers to do the job."

Book Two, Into the Void

Elizabeth Paula Shelby gaped at Admiral Edward Jellico. He_i could not have gotten a more stunned reaction out of her_i if he'd_j suddenly ripped off his_i own face and revealed himself_j to be a Gorn wearing an exceptionally clever disguise.

Book Three, *The Two-Front War*

"I want to blow those bastards out of space." 0

The *Excalibur* had just been rocked by the opening salvo from the black-and-silver ship that hung 100,000 kilometers to starboard.

Book Four, *End Game*

The refugees_i from the *Cambon* bleated in fear as they_i were herded into a large auditorium. Pacing the front of the room was the woman_j whom they_i knew to be Laheera_j...apparently, a high muck-a-muck in the hierarchy of the world of Nelkar. She_j looked at them_i angrily, her fury seeming to radiate from her in such a manner that is measurable by instrumentation.

The first excerpt begins with a telic transitive, though a fairly "shallow" one. It wouldn't be grammatically impossible for this sentence to passivize, however it would be highly unlikely, given the overall context. It is the opening sentence, the subject of the sentence is the Effector, and the object is of lower RS. The reader expects that Falkar is the topical participant and this is the case.

The second excerpt begins with, according to Rice (1987), a prepositional telic transitive. Again, the sentence could grammatically passivize (though there is greater disagreement among native speakers with prepositional telics). Further, should the sentence passivize, the following sentence could still be used and would still make sense. This is an example of "deep" transitivity. Nevertheless, the author has chosen to go with a straightforward telic with equal participant RS, skewing reader expectations towards the object. And this is precisely what happens. The following sentence features Jellico as sentential topic, albeit it in a somewhat unusual example of dispersed transitivity--the path aspect is construed across the "mental" domain which encompasses both intellectual and emotional states. Two features of thematic coherence are preserved. First, the greater thematic continuity of topic is retained; even though Shelby is not the subject of the second sentence, the statement is still about her reactions, not his. Second, intra-clausal cohesion is maintained by following the pattern expected of telic transitives with equal RS. Jellico does become the subject of the following sentence. In fact, the author has made very effective use of the competing motivations of the subject and object roles in English.

The third excerpt appears misleading until it is remembered that this is a series of books in close chronological succession. Book Two ends on a cliff-hanger; Book Three begins precisely where Two leaves off. Book Three begins with direct speech from Captain MacKenzie, who is the central participant of the series; the four books are about him. Thus there is no reference to him as speaker. Rather, the reader picks up the story just after the ship has been hit. The passive used in the second sentence places MacKenzie's ship, the *Excalibur*, as topical participant, the receiver of the action and also the object of the reader's sympathies. The narrative continues from there. It is also clear here that scenes need not begin with any particular kind of transitive clause. Functionally, the scene must begin and narrative exploits a number of possible plays to do so.

The fourth excerpt is an example of the atelic introduction. Although the reader knows all the participants involved, Book Four begins at a new place (unlike Book Three). The refugees are established as the topical participant with an atelic clause joined to a subordinate in which they are the subject of a passive. Recall that with a telic transitive, any of the three possible topicalizations are available: Effector, Affected, Predication. The same holds for the passive which is simply a telic transitive with a topicalization switch. Thus, aspects of the scene which are available include who is doing the herding of the refugees. That is what comes next. The refugees are herded into an auditorium, information which is offered in the same clause. Thus it is unlikely that the environment the scene is taking place in will be topicalized. The next participant who is introduced is Laheera, whom the reader knows is the "bad guy" behind the current troubles. She is still presented from the refugees' point of view; they as yet do not understand that she is the antagonist. Hence she is consistently spoken of in either the passive (sustaining the implication that she is the subject of someone else's actions/attention) or with telic transitives, thereby keeping the refugees as part of the scene.

We have seen in the above texts that the task of introducing participants and managing perspective takes place in narrative via a number of devices. Among those devices are the telic and atelic transitive. Atelic transitives also serve a second function. DuBois states that one-place predicates are also used when they are semantically appropriate. Even so, atelics serve a

particular function within their semantic domain. Specifically, they effect close-focus perspective changes.

Generally speaking, close-focus scenes which are action driven (as opposed to direct speech driven) are not introductory. They happen within well-established scenes where the viewpoints of the participants are highly constrained. It works rather like a tennis match. Clauses switch back and forth between participants, each action requiring some response from the other until a conclusion is reached. Participants may or may not be of equal RS. When they are not, the topical participant is often portrayed via a series of actions with no overt mention of the other. Also, the topical participant generally "wins." This win, however, often leads to or is part of a longer movement towards a more definitive climax. When the participants are of equal RS, the exchange is one of high drama where some action-driven climax is reached. The two passages below demonstrate each of these states: unequal RS and equal RS, respectively.

Simultaneous then, **attacks_s** came from the right and the left. Beginning his battle song, **he_i** parried to the left, **0_i** cut to the right, **0_i** parried left again, **0_i** cut through **that warrior_j**, **0_i** parried right, and **0_i** thrust. Both **attackers_j** fell

"Lady of Steel" Roger Zelazny, second paragraph

The **dragon_i** swooped once more lower than ever, and as **he_i** turned and dived down his belly glittered white with gems--but not in one place. **The great bow_j** twanged. **The black arrow_j** sped straight from the string, straight for the hollow by the left breast where the foreleg was flung wide. In it, smote and **0_j** vanished, barb, shaft, and feather, so fierce was its flight. With a shriek that deafened men, felled trees, and split stone, **Smaug_i** shot spouting into the air, **0_i** turned over, and **0_i** crashed down from on high in ruin.

scene from *The Hobbit*, J.R.R. Tolkien

In the first excerpt, Cora is the not only the topical participant, but the protagonist of the story. He is topicalized through both pronominal mention and zero anaphor. The other participants, his combatants, appear only twice as the object of the action "cut through that warrior" and in the final atelic transitive where "both attackers fell." It is difficult to tell from this

passage if "simultaneous attacks" is an overt mention of the discourse topic or an allusion to the two warrior combatants. Intuitively, I believe it is the first and serves a sort of scene-setting function in the paragraph. It is also noteworthy that the attackers are of lower RS; they are part of the overall scene, but not topical; they are merely participant props.

In the second excerpt, there are two clearly established topical participants, a protagonist (the Black Arrow) and an antagonist (the dragon, Smaug). The reader knows of the special participant quality of the arrow from the previous paragraph, where the archer addresses it formally, as though it were animate. This is important because, according to the animacy hierarchy, animate participants are of higher RS than inanimate ones. Thus the arrow must be established as on par with the dragon. The action proceeds from atelic (with subordinate clauses) to atelic, first topicalizing one participant and then the other. Typical of this kind of scene, the antagonist meets his demise and the protagonist triumphs. It is obviously not transitivity which accomplishes this, but the particular feel that consistent use of atelic transitives creates. As readers, we are at a close-focus level, where only one participant fills the entire scene. Time progresses in very short increments, moment-to-moment. Detail is considerable, but only that which belongs closely to the scene. For any action of one participant, the reader expects a reaction from another and radical perspective changes manage this. The reader's "mental eyes" go back and forth from participant to participant and the use of atelic transitives accomplishes this move. Where telic transitives provide venues of perspective shifts, atelic transitives provide perspective changes.

Finally, it is interesting and important to remember that in English, atelic transitives have the greatest diversity of syntactic-semantic structure. Atelics encompass not only simple, one-place predicates, but also reflexives, middles, and unique constructions such as the get-passive. My discussion here by no means exhausts the potential use of atelics, but is intended to be a starting point for the investigation of the semantic-pragmatic-discourse relationships of this varied structure.

3.4.3 Intransitives/Durative Transitives

First, I separate in this discussion "states" from "intransitives." States are such items as identifications ("She is a teacher"), ascriptions ("He is handsome"), and locations ("There were six men"). I believe that states are their own linguistic animal and should be treated independently of transitivity. Although states and intransitives often occur near one another, especially at the beginnings of stories, I will treat them as distinct entities and confine my discussion to intransitives.

Functionally, intransitives provide a panoramic view which imposes the least constraint on participants in discourse. There are always many possible directions any information subsequent to intransitives may go, though this is confined to at least some connection to the mentioned participant. Because of their loose constraint, intransitives tend to appear at the beginning and ending of stories. At the beginning, they are often used to introduce characters. At the end, they are often summary-type statements which name the ending state of affairs. However, they are not always the very conclusion of the story, but at the end of whatever action series is the climax. The following examples show both, first with introductions, second with conclusions.

March Mire lay at the heart of the great moors, a swamp so dangerous that none but fools would venture into it, and seldom did they come out. There were however local legends of a person who lived within the mire itself, a creature that knew the two or three safe paths across the mud. Generally they were said to be mad people, for if not crazy to begin with, the gloom, vapours, and weird sights of the bog soon sent them that way. They dwelled in lopsided hovels perched upon the quag and made their soup from peculiar plants, ate frogs even, and perhaps godlessly worshipped the stars. Now and then, tales were told of encounters on the moor with phantom phosphorescent dogs and men who had webbed hands and feet, and mostly all the stories were as apocryphal as these.

Nevertheless, it was true, Louisa lived with her aunt in a cottage on the mire and for nineteen years **knew** no other life

Her mother had died giving birth, and her father perished some time before...

Louisa the Poisoner by Tanith Lee

Much to her amazement and everyone else's, it all **worked out**.

Ella moved into the castle of her Haptigan prince, and put her stepmother and her stepsisters **up** in the east wing. The castle was big enough she rarely saw them, so they didn't **drive her crazy**. El's husband, the prince, **settled down**--and, at her request, added on a dairy farm to the establishment, though for reasons he **could never figure out**, he **got** less milk out of his cows than any other dairy farmer in the kingdom. He **didn't get away** with anything, either--his wife **knew** exactly what he intended to do from the instant he came up with any idea. From time to time, he **thought he saw** some of those glowing red eyes around the castle, but he **never dared ask**. For one thing, El was not the sort of woman to press on issues she didn't want to talk about.

For another, she **did know how** to use a whip.

The Whistling Two-Handed Circles were his favorite stroke.

Widdershins and all his friends **loved** their new home.

"Armor-Ella," by Holly Lisle

As these passages show, intransitives as opposed to atelic transitives have a durative quality; they are often "states of mind" or "states of being" that persist over time. Because of their semantic quality, they mix well with states and negation of activities (since negation of an activity is a state of mind or being in the persistent form of not-happening or not-being). It's also quite noticeable that the introductory passage leads from a non-referential participant "they" of very low RS to the introduction of the main participant but via a low-energy predicate. The conclusion, on the other hand, is about a state of affairs and references many participants at once (though the reader can tell from the various types of RS that Ella and Widdershins were the more important participants in terms of plot).

3.4.4 Dispersed Transitives

Dispersed transitives are defined as transitive events wherein the entire Point-Trajectory complex is expressed across a combination of a clause and a prepositional phrase. They are most commonly expressed using verbs of movement, though as we have seen above, the movement may be physical or metaphorical. Thus there are two unique factors to dispersed transitives. First, they encode events with explicit directionality, a semantic parameter normally left implicit in English. These are events bounded by a point in space or time. Second, there is an iconic match between the semantics and syntax of the event. The semantic specification of

directionality is expressed via the syntactic addition of a prepositional phrase. The event does not "finish" until the hearer/reader reaches the end of the added phrase.

At first glance, it appears that dispersed transitives are really a subset of atelic transitives. However, there are sound reasons for separating the two. First, as Hopper (1991) has pointed out, in certain kinds of narrative--or at certain points in narrative in general--this type of structure is statistically frequent. Second, following Slobin (1994,1996) there appears to be a legitimate typological distinction between verb-framed and satellite-framed languages. In satellite-framed languages, direction tends to be a distinct grammatical construction while verb-framed languages often conflate direction with the meaning of the verb itself. English is a satellite-framed language. Structurally, the manner aspect of motion is often conflated with the verb whereas the path aspect is specified in a prepositional phrase. Even though the preposition is a syntactic adjunct, semantically and pragmatically the information in the adjunct is necessary to the proper interpretation of the proposition and essential to textual flow.

For example, in the sentence *Olaf cut the fish into 1" pieces for the stew*, the predicate finishes with the fish being cut into 1" pieces which is the proper endstate of the action initiated by the Effector. Cross-linguistically, we could find this activity parsed with different combinations of activity+endstate. We do this in English to a degree, though principally with manner: *cut*, *chop*, *slice*, *mince*. We simply do not, to my knowledge, have a single verb which means "cut into 1" pieces."

Functionally, dispersed transitives have a unique position between telics and atelics. Dispersed transitives feature a topical participant engaged in an activity with a clear animacy or RS distinction between Effector and Affected. In this way, they resemble telic transitives. However, unlike telic transitives, the Affected participant is simply not a candidate for thematic importance. There is a strong path component to dispersed transitives which is grammatically spread out over two phrases, the predicate and a syntactic adjunct. In this sense, they are more like atelics, which frequently participate in texts with modifying phrases and clauses. The path component of dispersed transitives often results in a serializing effect and they are frequently

used when topical participants are preparing for something or when a cluster of activities lead to some major event.

In terms of perspectival distance, dispersed transitives again pattern somewhere between atelics and telics. As with atelics, there is a single topical participant at fairly close focus insofar as the single participant's activities are what is important. However, unlike atelics, dispersed transitives can cover longer time periods resembling the more basic distance suggested by telic transitives. Finally, dispersed transitives share with atelic transitives the single perspective on just one participant. They differ by being paired most often with non-human or non-self-instigating participants. The reader expects then that the only perspective available is the single topical participant, *Olaf*: *Olaf cut the trout into 1" pieces for the stew. ??It was an old recipe/It was a beautiful fish with rainbow sides.* It reads much more smoothly to keep *Olaf* the topical participant as the following examples show.

- (33) *Olaf cut the trout into 1" pieces for the stew. He'd caught the fish early that morning, just after daybreak, before the Smoky Mountain mists had yet cleared the streams.*
- (34) *Olaf cut the trout into 1" pieces for the stew. He was particularly fond of this recipe, an old family favorite passed down from grandfather to father, father to son, always over a cutting board and stew pot but never, never written down.*

Now, it is acceptable to refer to the other participants so long as they are contextually attached to the topical participant.

- (35) *Olaf cut the trout into 1" pieces for the stew. The recipe was an family favorite, passed down....*
- (36) *Olaf cut the trout into 1" pieces for the stew. Trout was a family favorite, especially when caught first thing in the morning before the Smoky Mountain mists had cleared.*

In both of these cases, while the non-human participants occupy the subject position, they are not discourse topics. The "story" is still about *Olaf* (and his family) though approached via subjects other than *Olaf's* personal activities or states of mind.

This sort of dispersed transitive is a way of deepening the reader's understanding of the main participant by providing narrative potential for further exploration of the participant's character through activities rather than simple descriptive statements. Also, it is frequently opted

for in the first person, significantly heightening the vicarious feel of experiencing a story through a character's direct perceptions.

I let myself in through the gate and circled the new construction to Henry's patio in the rear.

'F' is for Fugitive, Sue Grafton, p. 11

I moved through the hallway to the small back bedroom I was currently calling home.

'F' is for Fugitive, Sue Grafton, p. 13

Dispersed transitives are a way of getting a participant from one point to another—they complete the directional component of the path aspect of P/T complex when such is not otherwise specified. Dispersed transitives are not confined to the first person, though. They are equally felicitous in a third person narrative.

The blood had stopped flowing from Harry's broken nose and now he seemed to be breathing more regularly, more easily.

Sphere, Michael Crichton

This excerpt is the first sentence of a new episode and thus needs to accomplish two tasks. First, re-orient the reader to where in the story the scene is taking place. Second, set the stage for the action in this chapter. The dispersed transitive does this well. The mention of the character, *Harry*, tells the reader where in the overall action of the story this episode is taking place. Further, the use of *Harry* in the prepositional phrase rather than the initial clause identifies the human participant as secondary to the physical state in which he is cast. The entire paragraph features *Harry* as the one who is being acted upon as the subject of medical procedures. However, simply stating "blood" as the topical participant is hardly satisfying; blood must come from somewhere for some reason. The reason was stated in an earlier episode. This particular section is dealing with the result.

3.5 Deep and Shallow Transitivity

It is stated above that transitivity and its alternative realizations result in perspective shifts and changes. Perspective shifts are the domain of telic transitives wherein the entirety of

the event is being communicated and the speaker selects the linguistic vantage point from which the event will be viewed. Perspective changes are more drastic shifts which exclude other participants. This is the domain of the atelic transitive. The chief distinction between these two is that for an atelic to succeed, it must be contextually set up. Telic transitives, though, provide their own context semantically, and to some degree, pragmatically as well. As an alternation, what makes the passive such an interesting construction is the semantic trail it leaves behind: even when the Effector is not explicitly mentioned, it is semantically available.

There are basically three levels at which perspective shifting can take place—the syntactic, the semantic, and the discourse-pragmatic. The syntactic level of shifting is simply the grammatical prerequisite of a legitimate direct object.

(36) Olaf kissed Gertrude/ Gertrude was kissed by Olaf.

(37) The dog barked at the cat/ The cat was barked at by the dog.

However, we know from many linguistic sources that the mere presence of a direct object is not sufficient to allow perspective shifting. There are semantic constraints as well such as unilateral activity, an affected participant, and an initiating participant or force. Shifts such as passive suffer when these basic parameters are stretched too thin.

(38) Olaf knew the answers/ ?The answers were known by Olaf.

(39) Thor swung his mighty hammer/ *His mighty hammer was swung by Thor

Thus any clause has at least syntactic and semantic factors to consider.

There are discourse factors as well. In text, a clause shifts if and only if the perspective shift does not violate expectations set up by previous discourse. Here is where the three levels work together. The perspective of any given participant cannot be taken if the participant is not established in discourse, either through topicality or through explicit telic clauses. The shift must follow the expectations of the hearer. Once the schemata are minimally established, shifting can take place. But expectations about who is acting cannot be violated.

For example, in the paragraph from "Little Turtle's Big Adventure" quoted again below, passivization is possible because both participants—the little turtle (protagonist) and the machines (antagonist)—are topical. The little turtle has been established in the first paragraph as

the main participant in the text while the machines are being established as the topical participant in this particular paragraph.

One morning a **rumble like thunder** woke the little turtle. **Men with steam shovels and bulldozers** were working in the clover fields. **The machines** pushed over trees. **They** dug up clover. **They** tore down hills and **0** filled up holes. **The machines** made so much noise that the turtle couldn't hear the birds or the frogs.

"Little Turtle's Big Adventure," David Lee Harrison

One morning, the little turtle was awakened by a rumble like thunder. Men with steam shovels and bulldozers were working in the clover fields. Trees were pushed over by the machines. Clover was dug up. Hills were torn down and holes were filled up. So much noise was made that the little turtle couldn't hear the birds or the frogs.

Contrast this to a section later in the story when the little turtle encounters a boy. Here, the turtle is still the main participant. The boy enters the story briefly to effect the change the turtle is looking for. At the places bolded, it would be difficult to change the form used because it would interrupt the perspective from which the tale is told.

Every day the turtle walked. He saw more forest and more hills and more fields. But nowhere could he find a place that looked just right for a little turtle.

Then one day a boy saw the turtle. The turtle **had never seen a boy before**.

"This is no place for a little turtle," the boy said. And he picked him up and carried him down a shady path. The turtle hid inside his shell. He **had never been carried before**.

In the sentence, *The turtle had never seen a boy before*, the active voice is necessary to continue the perspective of the turtle; the preceding sentence introduces the boy, but does so with the indefinite and in the subject slot. The subsequent clause, though, features the boy not as a specific object, but as a generic. To passivize the sentence—*A boy had never been seen by the turtle before*—simply makes no sense since *boy* is not specific. On the other hand, even if the object of the turtle's seeing had been made definite—*The boy had never been seen by the turtle before*—the sentence still fails contextually. The reader knows the turtle has never

encountered this boy before. Thus perspective shifting in this case is not allowed. The same holds for the second bolded clause. In terms of perspective, it is the turtle who remains constant and his vantage point is the one from which the scene must be viewed.

A distinction must be made here between passivization constrained by context and that constrained by syntax. In an earlier excerpt, repeated below, it was claimed that the first sentence could passivize syntactically but would not because of discourse constraints.

Falkar regarded the remains of his troops and, as the blazing Xenex sun beat down upon them, **0** decided to wax philosophical about the situation. "It is not uncommon to desire killing a teenager," **he** said. "However, it is not often that one feels the need to send soldiers to do the job."

Book One, *House of Cards*, Peter David

??The remains of **his** troops were regarded by **Falkar**, as the blazing Xenex sun beat down upon them, and it was decided by **him**, to wax philosophical about the situation. "It is not uncommon to desire killing a teenager," **he**, said. "However, it is not often that one feels the need to send soldiers to do the job."

Although the grammatical prerequisites are met, it just "doesn't work" to passivize the sentence. Since no perspective has been established and the Effector is an important part of the story, passivization makes no sense. In another example, however, passivization is constrained by syntactic considerations. In this section of text, inter-clausal cohesion requires the telics not passivize.

Polyta stepped over to **Colleen** and **0** rubbed the dog's head for comfort. **Colleen** whined softly in response and **0** rubbed her cheek against the woman's thigh.

Manannan's Isle, L.S. O'Brien

Polyta stepped over to **Colleen** and the dog's head was rubbed for comfort. **Colleen** whined softly in response and her cheek was rubbed against the woman's thigh.

This last excerpt is also a good example of when a "telic is just a telic." The actions within these clauses are semantically telic but do not impose any particular kind of discourse constraint. At

this point in the story, the three main participants--Polyta, Origen, and Colleen, the dog--are already well-established.

3.6 Quantitative Patterns

When this project was first begun, it was assumed that because narrative is an event-driven structure, telic transitives would play a large role statistically. In fact, as the following percentages show, telic transitives do not play a major role quantitatively. Instead, atelic transitives tend to have the greatest statistical effect. The numbers below are gathered from three sources: "Cora," "Bard Defeats Smaug" (excerpt from *The Hobbit*), and "Little Turtle's Big Adventure" (a children's story). It should also be noted that not every clause need have a transitivity value. For example, states are not included below.

<u>Little Turtles Big Adventure</u>	Telics	Atelic	Intransitive	Dispersed	Totals
total number of clauses: (excluding speech acts and subordinate clauses)	26	27	14	9	76
<u>Cora</u>					
total number of clauses: (excluding speech acts and subordinate clauses)	16	24	4	0	44
<u>Bard Defeats Smaug</u>					
total number of clauses: (excluding speech acts and subordinate clauses)	4	19	1	1	25
Totals:	46	70	20	10	145
Percentages:	32%	48%	13%	7%	

Figure 3.2: Quantitative Analysis of Clause Types with Percentages of Occurrence

<u>Adult Narratives Only</u> (excluding "Turtle")	82	20	43	5	1	69
Percentages	29%	62%	8%		1%	

Figure 3.3: Raw Count and Percentages Clause Types in Adult Narratives

What the numbers show is that contrary to expectation, telic transitives do not dominate text. In fact, atelic transitives tend to play a larger role. Upon consideration, this makes good sense. If an entire narrative is understood as bound in "space" by cultural expectations of structure (and linguistic junctures such as proposed by Givón) and moved through by "time" (the implicatures resulting in the chronology of events), then the movement itself from one end of the text to the other must be carefully managed to remain comprehensible. Both time and space must be taken into account. Telic transitives set a basic-level distance in space, thereby narrowing the potential field of participants, but they do not do so overly much. A basic-level perspectival distance still leaves too many participant the wherewithal to act. On the other hand, atelic transitives narrow the field to a single participant (per clause) upon which a reader may focus full attention. Atelics lend high predictability to discourse, hence higher cognitive comprehensibility.

Children's narrative also shows regular statistical differences with adult narrative. Two major things stand out. First, there is a higher percentage of telic transitives; in other words, more of the action is explained and less is left to context. Second, there are fewer subordinate clauses. The number of clauses sporting some kind of transitive and the number of overall clauses is much closer. This means that there is less information being presented in subordinate and other kinds of complex constructions in children's literature. We would expect as much but it is interesting nevertheless to see it played out statistically.

Another interesting point has to do with time-lines and telic transitives. As mentioned above, Hopper and Thompson (1980) claimed that "high" transitive clauses should be foregrounded information, hence on the time-line, whereas lower transitivity clauses should not. It has already been demonstrated that this is not true for atelic transitives; indeed, many atelics are on the time-line of the narrative. But what of the first claim? We see below that as Hopper and Thompson predicted, most telic transitives are on the time-line of the narrative. The following counts exclude any textual subnarratives (which are not on the time-line of the story, but create alternate time-lines to the main narrative).

On Time-line	Telic/%	Atelic/%	Dispersed/%	Intransitive/%
<u>Little Turtle's Big Adventure</u>	21/ 81%	23/ 85%	9/ 100%	0
<u>Cora</u>	12/ 92%	18/ 100%	4/ 100%	0
<u>Bard Defeats Smaug</u>	3/ 75%	18/ 94%	2/ 100%	0
Average %:	82.7%	95%	100%	0%

Figure 3.4: Time Line and Clause Types--raw score out of total/percentage in text

What the above averages suggest is that there is a one-directional correlation between telic transitives and the time-line. That is, if a clause is telic, it is most likely on the time-line. However, the reverse--if a clause is on the time-line, it is telic--is not true. A note of caution must be added here: this is a fairly small sample size and certain results should not be taken too absolutely. In particular, the likelihood that all dispersed transitives are on the time-line needs to be further tested. On the one hand, it seems likely that these clauses should be on the time-line since they are about motion or activity. Given their intermediary status between telics and atelics, this should be a high correlation. On the other hand, very little at the level of text ever works out to be one hundred percent. It could be that these are consistent realizations of the unmarked form (Sullivan, 1998:pc); it is also possible this figure is an accident of the data.

3.7 Concluding Remarks

This chapter has demonstrated that transitivity has a function in narrative discourse, though it works with other discourse elements in producing this effect. Specifically, the four clause types work in concert with topicality and perspectival distance to achieve the management of perspective. This in turn leads to increased comprehensibility. Transitivity and its alternative realizations must respond to discourse pressures--for a choice such as passivization, it must be sanctioned through all three levels of grammatical structure-- the syntactic, semantic, and discourse-pragmatic. Finally, the four clause types have a unique quantitative distribution which is different from popular expectation. Atelic transitives dominate statistically. Two factors contribute to this fact. First, both atelic and dispersed transitives occur on the time-line, a fact not taken into account in previous studies. Second, and more importantly, both atelic and dispersed transitives constrain perspective more completely, hence

increasing predictability, and helping to fulfill grammar's task as the linguistic manager of on-line comprehension.

The question remaining is what role does transitivity play in non-narrative discourse? What perspective is managed in expository text? How does perspectival distance work when events are primarily non-physical? Finally, what function does a P/T complex have if time and perspective are not the textual connective tissue? These questions will be addressed in Chapter Four.

CHAPTER FOUR TRANSITIVITY IN EXPOSITORY TEXT

4.1 Opening Remarks

This chapter necessarily begins with a linguistic description of expository text. As it turns out, this is more easily said than done. While there is a considerable body of work on the linguistic particulars of narrative structure, much less has been done with non-narrative texts. Attempts to define expository text are made more difficult by the breadth of what the term encompasses, including newspaper reports, editorials, how-to manuals, academic essays and lectures, sermons, textbooks, and cookbooks, just to name a few. The temptation is to throw in the towel, so to speak, and conclude that "...expository discourse cannot be narrowly defined, but only with a certain degree of arbitrariness. Thus, our material involves texts that *have typical expository functions* in general. Typicality is not taken in any theoretical sense, but in the intuitive sense of what is a *characteristic instantiation of nonfictional informative writing*" (Goutsos, 1997:39, emphasis added). While I do not disagree with Goutsos' claim that expository text is intuitively recognized by its primary function as informative discourse, in order to understand the function of transitivity in expository text, some linguistic rendering of the notion "expository" text must be tried. This will be the first task of this chapter. The interactions of transitivity and expository text will then be investigated.

4.2 Towards a "Linguistic" Definition of Expository Text

The principle works referred to in this section are Jones (1977), Longacre (1983), and Goutsos (1997). While these three authors do not represent the entire range of linguistic work on expository text, each represents a critical aspect of its investigation. (For a more thorough review of the literature, please see Goutsos, 1997, pp. 35-41.) Specifically, Jones uses the (admittedly undefined) term "network" to describe the propositional relationships inherent to expository text. While she uses the term intuitively, it emerges as a more than adequate term

for the general information structure of expository text. Longacre proposes and develops a working model for the relationships between discourse notional type and surface structure, which are so often overlooked or ignored in linguistic studies, even those which are purportedly discourse oriented. While his model has not gone uncriticized, it still serves as an excellent statement of a working grammar of discourse structure and has inspired much of definition offered below. Goutsos fills in a critical missing component in the study of expository text—that of sequential relationships and strategies. If indeed expository texts form whole discourses with beginnings, middles, and ends, then there must be some way to get from one end of the text to the other, and Goutsos provides an excellent model for how this task is accomplished. The organization for this section, though, will be based on the parts of expository text itself rather than an author-by-author discussion. Each will be worked in as appropriate.

4.2.1 Narrative Versus Expository Text

The definition of one item in terms of another is not always a profitable form of investigation, but in this case, the comparison of narrative and expository text proves fruitful: "So determinative of detail is the general design of a discourse type that the linguist who ignores discourse typology can only come to grief" (Longacre, 1983:1). Nevertheless, expository and narrative structure also share crucial similarities: "Something like plot characterizes forms of discourse other than narrative. If we grant that any discourse is going somewhere, it follows that it does not simply start and stop but that it may have some sort of cumulative expression in between" (20). Thus, the following discussion will examine not only what distinguishes narrative and expository text but also the elements of structure they both share.

4.2.1.1 Differences

Longacre (1977, 1983) employs four binary features to categorize notional types: contingent temporal succession, agent orientation, projection, and tension. Contingent succession refers to whether or not the reader moves through the text via events or doings which depend on previous events or doings. Agent orientation refers to whether doers of actions form the persistent referential framework of the text. Projection refers to whether or not the actions and situations of a text are realized. Finally, tension reflects a conflict or struggle in the text.

The last two features, projection and tension, are potential elements of any discourse type and will not be discussed in depth.

The first two characteristics, contingent temporal succession and agent orientation, do not merely separate narrative from expository text, but instantiate components every discourse exchange must have. There must be some way of getting from one end of the text to the other and there must be surface structure strategies for accomplishing this task (linear succession). Also, there must be some central referential point or points, what Jones calls a "referential nucleus" (1977:130), in order for a text to cognitively cohere. In other words, texts are "about something" and there must be linguistic strategies for establishing and signaling what these somethings are (topic orientation). These two points are central to linguistic communication: texts are communicated through time (regardless of their semantic structure) and texts communicate about a limited set of things (regardless of their linear structure). These seemingly opposing forces form the "paradox" which characterizes discourse studies.

Narrative text is "plus" with regards to both contingent temporal succession and agent orientation. Narratives follow a chronological event-line in order to get from the beginning to the end and they are concerned with the states and change of states of topical participants. Expository texts are "minus" contingent temporal succession. That is, expository texts do not proceed linearly according to events which cause other events. Rather, they follow "logical linkage" (Longacre, 1983:7). Further, expository texts do not turn on participant reference; instead, they have repeated reference to "themes". Both of these propositions bear further exploration.

4.2.1.1.1 Theme

Traditionally, the persistent discourse topic of an expository text is called a "theme." This term is confusing for obvious reasons. Like the term "topic," "theme" has many meanings in linguistics, both notional and technical, and is grounded in several different theoretical perspectives. Since "discourse topic" can refer to any persistent referential entity, this is not a sufficiently specific term for our needs. It is tempting at this point to propose some term parallel to "participant" for expository text, thereby avoiding such phrases as "discourse or thematic

participant" and "discourse or thematic theme"! However, the structurally parallel term, "thematicant," is aesthetically unappealing (to say the least) and would burden linguistics with yet another improbable label.

Thus, the best decision seems to be to stay in keeping with tradition and use the term "theme" albeit with the following comments. This use of the term is distinct from the Hallidayan theme or the Prague school theme. It is not a sentential notion (though, of course, the theme can be realized sententially). Notionally, theme is the "referential nucleus" of an expository text (Jones, 1977:130). The referential nucleus of a text is a structure-defining element insofar as it "gives characteristic patterning (structure) to sentences and conversations" (131). The theme of an expository text is the "main idea" or "main thread" of the text and as such, enjoys referential prominence; themes structure the text by being the thing the text must be about. In sum, "theme" is the expository text analog to "participant" in narrative text. The major difference between the two is that while participants are (mostly) individual entities capable of effecting or being affected by change, themes are asserted situations and states of affairs. In other words, themes are PROPOSITIONS. The two paragraphs below demonstrate this difference.

What is a discourse community? In general terms, it is a group of people who share ways to claim, organize, communicate, and evaluate meanings. More specifically, if you and a friend have one or more discourse communities in common, the two of you will probably spend a significant amount of time focusing your attention on the same issues and things. And both of you will probably have a firm sense of why you focus on those issues and things. Moreover, the two of you will share many ways to evaluate your thinking and communicating. Finally, the two of you will agree about many kinds of actions that your thinking and communicating can and should lead to. In great measure, then, the systems of meanings associated with the discourse communities that you belong to will be at the center of how you interact with others and the world.

Schmidt and Vande Kopple, 1993, p.2

The blood had stopped flowing from Harry's broken nose and now he seemed to be breathing more regularly, more easily. Norman lifted the icepack to look at the swollen face, and adjusted the flow of the intravenous drip in Harry's arm. Beth had started the intravenous line in Harry's hand after several unsuccessful attempts. They were dripping an anaesthetic mixture into him. Harry's breath smelled sour, like tin. But otherwise he was okay. Out cold.

Sphere, Crichton, 1987, p. 292

The first excerpt (hereafter "Discourse Communities text") defines discourse communities and is, in effect, a series of propositions leading from the question "What are discourse communities?" to the answer that they are "the systems of meanings" which will be the center of how individuals interact with others and the world. The "main idea" of the paragraph is realized through these two statements and may be expressed as "Discourse communities are the systems of meanings which are at the center of how individuals interact with others and the world". The material between the first and last lines is merely exemplification or explanation of this theme. One of the hallmarks of expository theme is its implicational nature. More often than not, it is communicated about without being explicitly mentioned sentence to sentence. The reader is expected to infer the connections from statement to statement as signaled by surface structure. (These structures will be discussed below in various sections, including "predicate type" and "transitivity and expository text".) Most relevant here is the recognition that the theme of this excerpt is the definition of discourse communities--in other words, a proposition about the state of affairs being asserted by the authors to be the abstract entity "discourse community."

The second excerpt (hereafter, the Sphere text) is quite obviously about individuals and the actions they are engaging in and being affected by. This is most clearly signaled by repeat reference to specific participants and their actions. Names are used frequently along with pronominal reference to these participants.

4.2.1.1.2 Linkage

The surface structure of linking elements is intimately related to the topic orientation of the text (participant or theme). The discussion of linkage involves three parameters: predicate type, pragmatic coherence, and continuation and transition spans.

Predicate Type

In narrative, participants are linked together in series of contingent EVENTS through time (hence the primacy given to the transitivity system in narrative discourse). In expository text, themes, which are propositions, are linked through predications about SITUATIONS AND STATES: "...each surface structure type has characteristic tense/aspect/voice features in the verbs that occur on its main line...Expository discourse is generally quite distinct in its preference

for existential and equational clauses--often with considerable nominalization" (Longacre, 1983: 8).

The result is the quite different predilection towards predicate types in the two discourses. Narrative texts favor eventive predications precisely because the text moves its referential nuclei through the text via contingent activities. The referential nucleus of an expository text is not an individual actor, though; it is an entire proposition. Since the purpose of an expository text is usually a combination of informing and persuading, the author is forced into the activity of explaining the various presuppositions of the proposition before getting to demonstrate the assertion itself. The result is sets of information networked in "mental space" rather than a series of events linked through time.

In the Discourse Communities text, there is an abundance of assertions involving situations or states. The opening question presupposes a state for its answer: "It is" is usually the answer to "What is." The material in between proposes several sets of hypothetical situations in relationship to the statement "if you and a friend have one or more discourse communities in common, [then]..." These hypothetical situations are not related linearly to one another. The order of items could very well be switched with no real loss or distortion of meaning. What is created is a network-like structure around the definition of discourse communities in a basic exemplification relationship.

The Sphere text, on the other hand, sports almost exclusively eventive predicates with clear Effector and Affected participants: *blood had stopped flowing, Norman lifted the icepack...and adjusted the flow of the intravenous drip, Beth had started the intravenous drip in Harry's hand ... They were dripping an anaesthetic mixture into him.* The action is linear in nature with only two off-time-line events (*blood had stopped flowing, Beth had started the intravenous drip*), neither of which seriously "interrupts" the time-line. Each action leads to the next in a smooth flow from the state proposed at the beginning of the paragraph (*he seemed to be breathing more regularly, more easily*) to the ending state at its close (*But otherwise he was okay. Out cold.*). The reader is moved forward in time as is characteristic of narrative text.

Pragmatic Coherence

A little mentioned contrast between narrative and expository text is that of "audience engagement" (my own term). The concept *suspension of disbelief* is well-associated with narrative text. It refers to one sort of expectation about pragmatic coherence that the audience is supposed to bring to the text. In narrative, there is an implicit contract that the audience will accept the events and the order of events as the author has laid them out. This is why one of the challenges of fiction writing is to create characters and circumstances that are believable; they must not violate the audience engagement contract. A reader will throw down a story in disgust if the believability of the necessary connection between participants and events is stretched too thin.

No such "suspension of disbelief" exists for expository writing. In fact, it is quite the opposite: the engagement of disbelief. The reader is expected to be a critical one, paying particular attention to connections among the various sets of information offered. The writer knows that the audience is actively involved, even hostile, and engages the reader directly quite often throughout the text. This is another formal difference between narrative and expository. In narrative text, it is unusual for the author to speak to the reader directly, even in first person accounts. However, in expository text, it is quite normal for the author to "speak to" the reader and the use of commands, questions, and performatives is not at all unusual.

Again, the above excerpts both demonstrate this point. The Discourse Communities text begins with a question which the writers are supposed to answer. The question gets the reader's attention since this is the main theme of the entire book. A very careful trail of examples is laid out to demonstrate the validity of the definition before it is even given. In the Sphere text, though, leaps in logic are made from action to action with virtually no explanation given. Why does Norman need to look at Harry's swollen face? Is this the reason for the adjustment to the intravenous drip? How can one know to make such an adjustment based on looking at someone's face? Why did Beth fail so many times to get the IV started? Why does Harry's breath smell sour, like tin, and what impact does this have on the logic of the events? Is the bad breath really meant to be the counterpoint to "otherwise he was okay"? While these question

might be valid if doing a critical analysis of the work, they are simply not part of the reader's approach to the text. We are not to ask about the connections between events, sentence to sentence, but to accept them as given by the author as part of the experience of the story.

Continuation and Transition Spans

It was mentioned above that a basic assumption underlying discourse study is the notion of the text as a self-contained unit. As Goutsos points out, this is particularly the case for printed material: "The typographic layout of the page with the title at the top, the justification of lines, the indication of the ending, and so on create a number of expectations in the reader...These expectations confer unity to the text, prior to and independent of any linguistic signals of continuity" (1997:42). Readers expect that text is not a randomly generated set of utterances and will work quite hard to create coherence for themselves. Part of this coherence is the expectation that each new sentence relates to the one before. The primary relationship set up between sentences is that of continuity and discontinuity.

Writers must manage the task of creating a unified body of material which the reader encounters in a linear fashion. For the simple reason that not everything can be said at once, information must be sequenced. A primary duty of the writer is to signal to the reader varying levels of continuity and discontinuity. These are indicated in part by various linguistic cues, for example, structural parallelism (indicating continuity) and conjunctions (indicating discontinuity). While the entirety of Goutsos' excellent model of sequential relations in expository text exceeds the needs of this chapter, his notions of "continuation span" and "transition span" are critical.

Goutsos defines continuation and transition spans as "...areas of local continuity or stability interrupted by areas of swift or abrupt ruptures that introduce turbulence or instability into the text...Their succession produces rhythm or periodicity in the writing, which is similar (although not identical) to the graphically manifest succession of paragraphs" (44). In the Discourse Communities text, two transition devices are employed and one continuity device. The first type of transition device is the rhetorical question. The second is the adverbials: *For example, In general terms, More specifically, Moreover, In great measure, then...*. The primary continuation device is the parallel sentence structure and content used throughout the paragraph.

In the Sphere text, tense/aspect and transitivity are the transition devices. Tense/aspect, as mentioned in the above section, signals information off and on the time line. The intransitive states of the first and last sentences signal the beginning and end of the paragraph.

The entire inventory of continuation and transition devices is too extensive to go into here. Rather, as will be demonstrated below, where transitivity is a continuation device in narrative structure, it serves quite the opposite function in expository discourse.

4.2.1.2 Similarities

There are two principle similarities between narrative and expository text: linear progression and illocutionary force. These are, in fact, similarities attaining among any kinds of texts. Linear progression encompasses both a notional structure and surface structure. The surface structure, continuation spans and transition spans, are discussed above. The notional structure of expository text will be discussed below. Illocutionary force also has notional and structural sides. The notional side is the concept "suspension of disbelief," introduced in an earlier discussion and expanded below. The surface structure implications of this will also be explored.

4.2.1.2.1 Argument line

One of the principle similarities mentioned for narrative and expository text was the need for some structural means of getting from one end of the text to the other. There are two basic linguistic approaches to this problem. The first is structural and answers the question of what linguistic clues does the reader need in order to understand the sequential relationships in the text. These "clues" are surface structure features such as tense/aspect configurations, adverbs, and subordination. These structures organize the reading experience through time in the form of sequential strategies and in space in terms of prioritizing information. This approach is more familiar to linguistics and is responsible for such narrative concepts as "off" and "on" the time line.

The second approach is notional in nature and seeks to explain in more depth the information relationships in text. While commonly associated with applied analyses in composition, such an approach is becoming more important to linguistics as well. It is becoming

increasingly clear that in order to account for states of knowledge as they are negotiated in discourse, and signaled by various structural cues, linguistics will need to develop more sophisticated accounts of the notional structure of texts. This is required both on the macro-level encompassing concepts like "script" (Schank, 1973; Jones, 1977; Longacre, 1983; Yule, 1995) and "schema" (Yule, 1995; Givón, 1994), as well as on more local levels (Longacre, 1983; Mann and Thompson, 1987, 1988; Berman and Slobin, 1994). Certainly, Longacre, Jones, Goutsos, and Berman and Slobin contend that surface structure cannot be understood apart from notional structure, and all of them put a great deal of effort into constructing models of how these relationships work. The general conclusion seems to be that if surface structure encodes information structure, then there should be an information structure to be encoded.

Since this project is not trying to build a model of expository text as such, the entirety of the above works is not necessary. What will be used, though, are two principle insights. First, expository discourse--like narrative--has a "main event line" carrying the thematic load of the text. For expository, I shall call this the "argument line" (a term sometimes used by Longacre). Second, linguistic information is organized broadly in two domains: through time and in space. The former is what Goutsos explicitly identifies as the sequential relationships and strategies borne of the fact that human beings produce and process language through time. The latter is implicit in all discourse and information studies. While we process language through time, the semantic and pragmatic information communicated therein is (often) non-linear in nature. There is considerable psycholinguistic evidence that language is stored in networks and linguistic models of information structure bear this out. As is no doubt obvious by now, these two complementary domains are present in all forms of linguistic communication, and may be considered parametric as well. Some text types, such as narrative, show greater structural leanings towards linear organization while others, such as expository, show the same tendency towards non-linear organization. These notions will be taken up in greater detail and exemplified in the section "Transitivity and Expository Text" below.

4.2.1.2.2 Illocutionary force

Another similarity between narrative and expository text is not widely discussed in the literature, though both Jones and Longacre make extensive reference to the idea. This is the speech act relationships between writer and reader. For Jones, these relationships constitute the highest level of linguistic structure (called "performative interaction," a tagmemic notion) in a hierarchical model of text. For Longacre, speech act elements create more of an "outer" layer of structure which not only organizes text in a top-down manner but permeates discourse down to the level of each and every sentence. Again, while this study does not subscribe to the whole of either model, the basic concept is important.

Essentially, there is a triangle of relationship in any discourse: speaker/writer, hearer/reader, and text. These three elements form the basis of the speech acts in any discourse. Put most simply, (it is my contention that) illocutionary force as signaled in a text is a "measure" of interactional distance between the speaker/writer and hearer/reader (hereafter, I will use the latter pair since this project is concerned primarily with written text). In narrative, the distance between the writer and reader is greater. This is commonly known as "suspension of disbelief," as mentioned above. The reader of a narrative is supposed to be engaged with the text itself, as given, not with the writer. Longacre points out as much in his discussion of the presence of the composer in discourse (1983:17-19). It is unusual for the writer of a narrative to address the reader directly. This certainly happens, as it does at the end of the "Hobbit" selection ("And that was the end of Smaug and Esgaroth, but not of Bard"), but it is outside the norm. Please note that this is a separate phenomenon from that of first or third person narration. For the character in a first person narration to "address" the reader is a matter entirely different than for the writer to address the reader. The movie *Ferris Buehler's Day Off* provides a good example (since a movie is a visual narrative, the comparison is workable). In this movie, the main character, Ferris Buehler, narrates the entire story. At various moments throughout the story, though, he "breaks" with tradition and looks directly at the camera to speak to the audience. At several points, he even holds mini-conversations, asking the viewers questions then acting as though he had received an answer. It is an effective strategy, but must be done with caution. Such an

intrusion directly challenges the reader's expected primary relationship with the text rather than with the writer.

In expository text, the reader is simultaneously involved with both the text and the writer. Contrary to narrative text, the reader practices "engagement of disbelief." The ideal reader is supposed to be aware not only of what is being said, but how it is being said and who is saying it. This is clearly signaled in expository discourse with the frequent use of information-directing devices aimed at the reader, most often in the form of questions and commands. For example, it is not unusual to encounter rhetorical questions in expository text. Longacre places such question into the category "drama"—surface structures that can be used in many notional types and simply serve the purpose of getting the reader's attention (1983:6). However, rhetorical questions also provide important cues about thematic information. Questions are also used non-rhetorically, often times in concluding sections. An author may conclude a section or a publication with a series of questions suggesting areas of future research (thereby exonerating the author from doing so) or simply provoking greater thought on the subject. In either case, both assume a reader sufficiently engaged to be communicated with directly.

Academic essays are also rife with "polite commands" which serve much the same function as rhetorical questions: they elicit reader attention by strongly directing it towards potential thematic changes. For example, in Schiffrrin (1981), 20 out of 52 paragraphs begin with either a question or command. Of the 32 remaining paragraphs, many begin with the inclusive "we," again demonstrating the writer's inclusion of the reader into the speech community. Examples are given below.

Return, now, to consider the evaluation of narratives (p. 59)

Note next that the progressive is also an internal evaluation device. (p. 59)

Consider, also, how the content of a direct quote can provide an internal evaluation for the narrative. (p. 59)

Why should temporal conjunctions favor tense-switching? (p. 55)

How can we explain, then, the constraint against tense-switching in verbal conjuncts? (p. 53)

When we examine where the HP occurs, we see...Let us first examine action verbs (p. 57)

How should these utterances be treated with respect to the rest of the essay? The problem is similar to the one for direct speech in narrative. Given Goutsos' basic division of

sequential strategies into continuation spans and transition spans, even a cursory look through expository texts reveals that these speech acts occur overwhelmingly in transition spans. In fact, like telic transitives, they appear to form part of the list of transition devices available to writers for the purpose of guiding readers through the complex networks of information connected throughout expository text.

In summary, the linguistic characteristics of expository text include preference for and extensive use of situations and states. These form networks of propositions about a single theme, the connection of which forms the main argument line of the text. In terms of illocutionary force, the reader is critical and engaged, resulting in a proliferation of speech act forms intended for the reader. Syntactically, expository text is marked by heavy use of nominalization and employs predicates in the present tense. What remains to be ascertained is which linguistic form provides the kind of information structuring in expository text that transitivity provides in narrative.

4.3 Topic-Comment Structuring in Expository Text

Recall that in narrative, transitivity has a structuring function in terms of information packaging: it opens up or closes down the range of potential sentential topics. Semantically, transitivity provided a range of options for expressing perspective on a scene and does so as a function of linguistically construed distance (perspectival distance). Hence, transitivity has influence in three domains--the semantic, syntactic, and discourse-pragmatic. In expository text, "topic-comment" relationships have an analogous function.

Notionally speaking, topic-comment structuring (hereafter, T-C structuring) is not the term for the sententially instantiated relationship; however, the sentential topic can signal information about T-C structuring in general. Rather, the notion is intended to encompass the organizational relationships attaining between a theme and the propositional network instantiating that theme. At first glance, this is a subtler relationship than transitivity which has clear endpoints, directions, expected results. T-C structuring is a broader organization tactic, encoding relationships at the discourse-pragmatic level of the text. Of course, in so-called topic-prominent languages, these relationships also have grammatical manifestations (see Chapter Two for comment; Chu, 1997,

for greater discussion). English, though, in not such a language, yet also has some clausal coding of T-C structure. Specifically, we find texts broadly structured through continuation and transition spans, both within and between thematic sections of text. Two devices in particular emerge as strong signposts of thematic continuity and discontinuity: adverbial expressions, and surprisingly, telic transitivity. A third pattern, structural parallelism, is also frequently employed, and is a powerful indicator of continuity within a single extended topic-comment structure at points of transition; in other words, as a device for signaling subtopics. However, parallelism is rarely used by itself, but accompanies other informational signals, usually adverbial expressions. For this reason, it will be discussed as it occurs in the text with other devices, rather than as a topic of its own.

Finally, because the focus of this dissertation is transitivity, it has been the grammatical entity to receive full theoretical treatment. The theoretical structure of adverbs, of continuation and transitions spans, even of parallelism is beyond the scope of this project. Thus, the following discussion is largely descriptive in nature. While some research avenues are suggested or implied, my concern is to demonstrate the role of adverbial expressions and telic transitives as they manage information flow in expository texts with regards to topic-comment structuring. A fuller investigation must await another time.

4.3.1 The Role of Adverbial Expressions: Continuation Spans

As a term, "adverbial expressions" encompasses not only spatial and temporal adverbs, but also conjunctions. These are all linguistic devices whose function is to relate subsequent information with what has come before. In terms of T-C structuring, adverbials can signal either continuity or discontinuity in sentential topic. However, as will be demonstrated below, adverbials are primarily responsible for information structuring *within* a larger continuation span and thus serve to coordinate information relationships within the extended comment of a macro-topic. In this way, they behave more as non-telic-transitives do in narrative text. Adverbial expressions signal that the current topic, even if a switch from the previous clause, nevertheless is part of a larger thematic network.

The following excerpt from Georgia Green exemplify this use particularly well. The excerpt was taken at random from the book *Pragmatics and Natural Language Understanding* (Green, 1989:64). Following the excerpt, a line-by-line analysis examining the role of adverbials expression will commence.

Speech Acts and Illocutionary Force

When James says, 'We're adopted,' in the passage quoted above, he performs, simultaneously, a number of different kinds of SPEECH ACTS, all of them intentional and goal-directed, although the execution of several is undoubtedly subconsciously controlled. First, he performs what the English philosopher J.L. Austin (1962) called a phonetic act--producing the articulation of tongue, jaw, diaphragm, larynx, and so on that results in connected speech sounds. Presumably, the goal of the phonetic act is to produce an acoustic object that the addressee (Gram) will recognize as speech sounds (and not, e.g., as involuntary vocalizations such as belches or sneezes). Simultaneously, and by means of the phonetic act, James performs the act of uttering linguistic expressions, producing a series of tokens of forms according to the grammar of a certain language, and with a certain intonation (Austin's 'phatic act'), with the intention that it be recognized as belonging to that language. At the same time, in order that his utterance be recognized as connected discourse about some proposition, James performs the acts of referring (with we), and predicating (with 're adopted) intending the forms he uses to be taken as referring to individuals, actions, events, and so forth, according to the conventions of the language and culture of the community he shares with the addressee (Austin's 'rhetic act').

The "Speech Acts" text is so-called because "speech acts" is the topic of the paragraph. This is linguistically marked in two ways. First, by the capitalization of the phrase, indicating the author is giving salience to it. This is not unlike a topicalization structure, except that it marks a standard sentence with focal stress via the use of media. In other words, if the text were spoken out loud, say as a lecture, the lecturer would know at this point to use emphatic stress. Second, the remainder of this sentence and the following sentences have a particular relationship back to this topic, marked as discussed below.

(1) When James, says, 'We're adopted,' in the passage quoted above, he performs, simultaneously, a number of different kinds of SPEECH ACTS, all of them, intentional and goal-directed, although execution of several, is undoubtedly subconsciously controlled.

After the introduction of the theme via the title of the passage, a different kind of organization begins which is quite distinct from that of event-driven discourse. Knowledge of the

topic is secure from pronominal use. Immediately, the reader encounters information which "expands" their knowledge of the topic: *all of them, intentional and goal-directed, although execution of several, is undoubtedly subconsciously controlled*. The reader knows then, that the topic is "speech acts" and that speech acts are characterized by being intentional, goal-directed, but subconsciously controlled. In and of itself, this information is not that different from the kind of information one encounters with a newly introduced or re-introduced topic in narrative:

The dragon swooped once more lower than ever, and as he turned and dived down his belly glittered white with gems—but not in one place.

The Hobbit, Tolkien

In this passage, the dragon is both subject and topic (re-introduced, which is why it can easily be both subject and topic), it's the dragon's activities about which the reader is being informed, and the author has even introduced a conflictive conjunction, much as in the "speech acts" line above. What the reader knows about the dragon is that it is swooping, diving, and glittering all over except in one place.

The difference in terms of organization of information is subtle. For the narrative piece, it is the activities on the narrative time-line which drive the text forward. In the expository text, though, it is not activities which organize **but adverbials qualifying the topic**. "Intentional" and "goal-directed" are not activities, but qualities of the topic the reader is to add to their current state of knowledge. Similarly, the reader is to further understand that the activity controlling this linguistic behavior (nominalized in "the execution of several") is subconsciously controlled, information which further qualifies the nature of the qualities mentioned above. The relationships among the information is similarly signaled. First, the simple use of the comma with no intervening semantic bit indicates a simple additive relationship, whereas the use of "although" adds a semantic quality to the new information. Thus, in terms of overall organization, the new information does not create any kind of linear progression but rather a constellation of information about the topic.

(2)-(3) First, he performs what the English philosopher J.L. Austin (1962) called a **phonetic act—producing the articulation of tongue, jaw, diaphragm, larynx, and so on that**

results in connected speech sounds. Presumably, the goal of the phonetic act is to produce an acoustic object that the addressee (Gram) will recognize as speech sounds (and not, e.g., as involuntary vocalizations such as belches or sneezes).

The sentence begins with what is traditionally considered an adverbial conjunction. Descriptively, these markers may be called "orientational adverbs" because that is their functional role in the text: they orient the reader to how the subsequent information should be understood vis-à-vis what has gone before. Semantically, "first" is a logical enumerator. Functionally, it indicates the subsequent information should be understood with respect to the **established** topic. Thus, "he performs" does not switch the topic back to James because it is contained within the scope of the adverbial—everything within this communicative act is intended to be understood as more information about the topic, "speech acts."

Nevertheless, it's quite clear that this sentence also introduces a new participant, "phonetic act." The reader knows this for much the same reasons given above: the nominal occurs in the traditional site of new information and subsequent information in this sentence and the following expands upon that nominal. Yet, all of this information is contained within the adverbial "first," and will be further limited by the following assertion beginning with "simultaneously." It is clear that "phonetic act" is not topical in the same way that "speech acts" is topical. Instead, "phonetic act" is a **subtopic**. Subtopic may be defined as a nominal element about which information is predicated but which stands in a "subordinate" role to the main topic. It therefore has a "node" of its own, with informative strands coming off of the node, but still connected to the main topic:

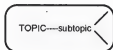


Figure 4.1: Topic/Subtopic

"Presumably" is again an orientational adverb with semantic content which does not enumerate, but comments on, therefore does not introduce a new subtopic but continues expanding on the established subtopic.

(4) Simultaneously, and by means of the phonetic act, James performs the act of uttering linguistic expressions, producing a series of tokens of forms according to the grammar of a certain language, and with a certain intonation (Austin's 'phatic act'), with the intention that it be recognized as belonging to that language.

"Simultaneously" as an orientation adverb does not subordinate its information to the immediately preceding (that contained by "first"), but creates a new space to be filled. The reader must go back to the first and main topic and mentally align this information subordinate to the main but on equal footing with the first subtopic.

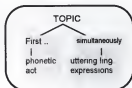


Figure 4.2: Topic/Subtopics Specified

The phrase "...and by means of the phonetic act" creates a link to subtopic₁ in such a way as to further our understanding of the relationship of subtopic₁ to subtopic₂. There is a relational link created between them that is independent of the link to the main topic but further creates conceptual coherence in the text as a whole.

The phrase, *James performs the act of uttering linguistic expressions, producing a series of tokens of forms...*, is a rather complex grammatical construction. Berman and Slobin (1994) provide evidence that this particular type of chaining is among the most complex across languages; it is never used by children, rarely used by teens, and is not even that frequent in adult discourse. They show that this kind of Event conflation is an expression of a macro-event which includes both the first and second verb as conceptual equals, but which cannot be expressed as such due to a gap in the lexicon, linear processing constraints, etc. In English, it is expressed through the "V1,V2-ing" construction while in other languages it is expressed through converbs and other morphological markers. Conceptually in this sentence, it would not matter if

the verbs were switched; no semantic difference would attain. The motivation for using one predication versus the other is a matter of discourse coherence—it depends which part of the predication is given and which is new to the discourse.

The phrases heading the following expansions, *according to...* and *with...with the intention that*, all expand upon the new subtopic₂—the linguistic expressions and their qualities.

(5) *At the same time*, in order that his utterance be recognized as connected discourse about some proposition, James performs the acts of referring (with *we*), and predicating (with *'re adopted'*), intending the forms he uses to be taken as referring to individuals, actions, events, and so forth, according to the conventions of the language and culture of the community he shares with the addressee (Austin's "rhetic act").

"At the same time" clearly orients the reader to subtopic₃, "referring and predicating." The phrase "in order that..." overtly mentions subtopic₂, creating another link necessary for coherence, and also sets up the reader to expect new information in the subsequent clause. "Intending the forms" and "according to" are additional expansions upon the nature and limits of subtopic₃. The overall structure attained in the discourse can be schematized as follows.

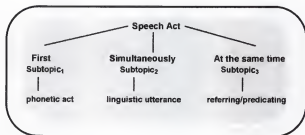


Figure 4.3: Complete Topic/Subtopics of excerpt "Speech Acts"

What is produced is a "network" of information, presented linearly but creating a final informational (or propositional) structure which is non-linear. It is organized not by contingent succession (despite the use of telic transitives), but through logical linkage according to the imposition of proposed relationships among the predications themselves.

4.3.2 The Role of Transitivity in Expository Discourse: Transition Spans

It has been established that expository text is characterized by themes instead of participants and situations/states instead of events. What role does transitivity play in a non-participant, non-event driven discourse? Two primary functions emerge for transitivity, both of them acting within transition spans. The first is the opening up of a range of potential new topics (Effector, Affected or Predication). This function is shared by both narrative and expository and may be said to be the central function of telic transitivity. The second is the use of transitivity to signal information which is off the main argument line. This occurs in two kinds of instances. First, "micro-texts" may make use of transitivity. A micro-text is an extended piece of text with a narrative-like feel but which lacks essential narrative features. Second, transitivity occurs in "bridge spans." These are extended transition spans bridging one part of the text with another (normally introductory and concluding passages) within which the author leads the reader through a line of logical reasoning using transitivity metaphorically. The first function is used repeatedly in the "Speech Acts" text. The second will be exemplified using a Lewis Thomas essay and other academic excerpts.

4.3.2.1 Transitivity and topic switching

The "Speech Acts" text makes exemplary use of telic transitivity to introduce new sentential topics. Where the adverbial expressions in these sentences relate the propositions to one another in a non-linear manner, transitivity is used in the classic sense of managing information structuring linearly, from clause to clause.

- (1) When James says, 'We're adopted,' in the passage quoted above, **he performs, simultaneously, a number of different kinds of SPEECH ACTS**, all of them intentional and goal-directed, although the execution of several is undoubtedly subconsciously controlled.
- (2) First, **he performs** what the English philosopher J.L. Austin (1962) called a **phonetic act**—producing the articulation of tongue, jaw, diaphragm, larynx, and so on that results in connected speech sounds.
- (3) Simultaneously, and by means of the phonetic act, **James performs the act of uttering linguistic expressions**, producing a series of tokens of forms according to the grammar of a certain language, and with a certain intonation (Austin's 'phatic act'), with the intention that it be recognized as belonging to that language.
- (4) At the same time, in order that his utterance be recognized as connected discourse about some proposition, **James performs the acts of referring (with we), and predicating (with 're adopted')** intending the forms he uses to be taken as referring to individuals, actions, events, and so forth, according to the conventions of the language and culture of the community he shares with the addressee (Austin's 'rhetic act').

The first of the above examples, *he performs...a number of different kinds of SPEECH ACTS*, is not only a telic transitive, but discourse-pragmatically, it is a deep transitive as well. Thus, if the sentence were passivized, no meaningful difference would result in terms of subsequent organization: *a number of different SPEECH ACTS were performed*. Each of the following sentences could maintain their form. The same cannot be said of the rest of the sentences, each of which would be less acceptable passivized. This is very much analogous to the situation found in narrative. Telic transitives are also deep transitives only at points of transition. This occurs at major junctures in text; at those point of topic changes, not merely subtopic switches.

The other three sentences each follow the parallel form of the first, copying some part of the information already known and introducing the next subtopic in the object, or "Affected," slot. Each of these sentences follows the structure of the first; hence, they are parallel to one another. Recall that the telic transitive leaves open the possibility of three choices: Effector, Affected, and Predication. The use of parallelism enhances reader comprehension by increasing the predictability of the actual topic of each clause.

The use of telic transitivity in this paragraph is not really one producing "event-driven" discourse. Rather, the repeated parallel use of the same Effector and Predication, *James performs...*, signals to the reader that this sentence is serving a particular function with regards to the expository purpose of the text. In each use of the sentence, a new aspect of the topic is introduced. Thus, on the one hand, the basic function of telic transitivity is exploited: the management of participant perspective. On the other hand, the information structure formed is not one of linear succession. Instead, as the analysis in 4.3.1 above demonstrates, what emerges despite the persistent use of a telic transitive is a constellation of information which points back to and expands upon the theme, "the performance of speech acts".

4.3.2.2 Micro-texts and bridge spans

Longacre provides an important discussion of embedded discourse types (1983:13-14). Basically, while there are surface structures and communicative purposes which define a

notional discourse type overall, within any discourse type, smaller pieces of text may be found which serve particular functions with regard to the whole. I call these texts "micro-texts" to distinguish them from "sub-texts" which are embedded examples of text of the same notional type in which they appear (such as embedded narratives providing background information on a character in a narrative text). The distinguishing feature between sub-texts and micro-texts is that the latter may have some of the features of a discourse type, but it does not have all of them. Micro-texts serve a transition function within a text type by signaling a diversion off the main textual line. The instances of micro-texts can vary: descriptive texts within narrative types; narrative texts within expository types; expository texts within hortatory types. In fact, any kind of micro-text can be used in any kind of discourse type.

Functionally, however, micro-texts do not necessarily have the same purpose as embedded discourses as they do as notional types. Rather, what appears to be carried over from the notional type is the surface structure and some portion of the semantics of the original put to use for a different function. This seems clear for the examples below. Not surprisingly, a number of instances of transitivity in expository text occur within narrative micro-texts. Functionally, narrative micro-texts are used to exemplify or illustrate a particular point of the theme. The use of narrative in this way adds vividness, even drama. And as Longacre points out, vividness is "preeminently a surface structure phenomenon" whereby the writer of a text breaks with the usual surface structure of a notional type to elicit the reader's attention at a certain point. In the example below, it is as if at this point in the text, the author is saying "Okay, I know you don't really believe what I've said so I'm going to tell you a little story to prove my point." Thus, narrative micro-texts in expository texts have the same surface relationship to the whole as sub-texts do: they go off the main argument line of the text to give more information relevant to a particular theme.

The following example is taken from Lewis Thomas' "On Societies as Organisms" in *Lives of a Cell*. The essay begins by comparing a large meeting of people to an assemblage of ants. Lewis then begins arguing in the second paragraph (where the excerpt begins) that while the comparison may be made in one direction, it cannot be made in the other.

It is permissible to say this sort of thing about humans. They do resemble, in their most compulsively social behavior, ants at a distance. It is, however, quite bad form in biological circles to put it the other way round, to imply that the operation of insect societies has any relations at all to human affairs. The writers of books on insect behavior generally take pains, in their prefaces, to caution that insects are like creature from another planet, that their behavior is absolutely foreign, totally unhuman, unearthly, almost unbiological. They are more like perfectly tooled but crazy little machines, and we violate science when we try to read human meanings in their arrangements.

It is hard for a bystander not to do so. Ants are so much like human beings as to be an embarrassment. They farm fungi, raise aphids as livestock, launch armies into wars, use chemical sprays to alarm and confuse enemies, capture slaves. The families of weaver ants engage in child labor, holding their larvae like shuttles to spin out the thread that sews the leaves together for their fungus gardens. They exchange information ceaselessly. They do everything but watch television.

First, note the extensive use of intransitive predicates in the first two paragraphs, particularly the copula and state verbs: *have the look of, is, would not be, resemble*. There is one dispersed transitive and one (possible) atelic: *cast out a line towards* and *take pains to caution*, respectively. Despite the relatively sparse use of verbs, there is an enormous amount of information being communicated, all about the same theme: from a distance, people look like ants and further, ants look like people.

Interestingly enough, the single telic transitive occurring before the third paragraph, *we violate science*, is not only a deep transitive, but occurs in the last line at a transition point between the expository surface structure and the off-line excursion into a narrative micro-text. Thus, when the following paragraph begins, the reader has the three points of view opened up by a telic transitive as the topic for the following paragraph, namely *we, science, or the violation of science* (Effector, Affected, and Predication, respectively).

The transition line in the next paragraph takes the third of the above options. The sentence, *It is hard for a bystander not to do so*, refers back to the predication of the previous line, *the violation of science*. The second sentence explicitly ties this paragraph back to the theme (people are like ants; ants are like people) and establishes "ants" as the paragraph topic of this section of discourse. Essentially, Thomas is trying to demonstrate that the comparison of ants to people is as worthy an act as the other way around, but first he must begin the process of proving that ants can be said to participate in the kinds of activities that people do.

In the rest of the paragraph, Thomas makes this point. His linguistic weapon of choice is the telic transitive: he strings together several highly dynamic predicates using a surface structure form often associated with intentionality (hence "humanness"). The result is an extended example breaking two "rules" at once. First, he flouts the ants in dynamic, human-like actions, apparently in violation of scientific norm, though leaves the comparison largely implicit. Recall from the discussion above on "theme" that this is a common strategy in expository text. Second, he breaks away from the normal expository surface structure and employs a form not merely different, but from a notional type considered most antithetical to expository discourse.

What is notable about the third paragraph, however, it is lack of narrative-structure. There is no contingent succession among these activities (the lack of past perfective prohibits the implicature from being made); it is simply a list of dynamic events. This is obviously 'merely' an example to prove a point, albeit a quite vivid and successful example. The use of the telic transitive provides a marked contrast compared to the stative predicates primarily used in expository writing. The relative lack of nominalization is also marked; rather than the more common equative sentences or nominalized propositions typical of expository text, there are simple participants engaged in activities. The rhythm, as Goutsos would say, has changed considerably. The combined force of the semantics and pragmatics of telic transitives clearly marks this paragraph as not only having a particular function with regards to the text-- to exemplify-- but as taking place off the main argument line as well. Overall, this is an excellent example of Givón's warning that much of linguistic form-function pairs are one-way directionals. While Longacre's contention that you cannot separate notional type from surface structure is true, it only works in one direction: notional type entails surface structure, but surface structure does not entail notional type.

There is also an intuitive feel that at this point in the essay, Thomas is still tip-toeing his way around his theme (especially since it is to be a violation of the biological sciences norm!). He engages in a more distinctively narrative micro-text in paragraph six. After having returned to the unmarked situational predicates in paragraphs four and five, he once returns to transitivity to form his exemplification. Paragraph six begins a brief, narrative micro-text, telling the story of

what ants to finish and furnish the ant hill. It is still a micro-text, though, and does not include all the components of a narrative.

At a stage in the construction, twigs of a certain size are needed, and all the members forage obsessively for twigs of just this size. Later, when outer walls are to be finished, thatched, the size must change, and as though given new orders by telephone, all the workers shift the search to the new twigs. If you disturb the arrangement of a part of the Hill, hundreds of ants will set it to vibrating, shifting, until it is put right again. Distant sources of food are somehow sensed, and long lines, like tentacles, reach out over the ground, over walls, behind boulders, to fetch it in.

This pattern now safely established, Thomas continues to make use of it in paragraphs seven, eight, and nine. In paragraph ten, he begins the return back to explicitly arguing his theme and the expository surface structure re-appears. Again, the purpose of the above example has been to demonstrate that one use of transitivity in expository text is to vividly exemplify or illustrate some point of the theme. The narrative micro-text does not display all the notional or surface structure qualities of the narrative discourse type; rather, there is a selection of some portion of them. Thus the micro-text is marked in two ways. First, it is different from the expository surface structure, signaling a functional shift. Second, the structure of the micro-text itself is marked compared to the notional type it represents, signaling that its use is not a total divergence from one notional type to another, but is subordinated to the discourse purpose of the larger text.

The Thomas text also showed another use of transitivity in expository text: as the surface form of a transition span. Recall that the last sentence of paragraph two signaled the possible change of paragraph topic. This supports nicely Goutsos' claim that there is explicit marking of some kind during transitions from one continuation span to another. My contribution here is simply to add transitivity, especially the use of telic transitives, to the inventory of signaling devices employed in expository texts.

4.3.3 Bridge Spans and Transitivity

There are other instances of "transitivity" in expository text where abstract states are construed as participants in what seems like event-driven discourse. Given the two examples

below, it is clear that the various ideas being discussed are also posited as Effector and Affected participants.

Transitivity, then, viewed in the most conventional and traditional way possible—as a matter of carrying-over or transferring an action from one participant to another—can be broken down into its component parts, each focusing on a different facet of this carrying-over in a different part of the clause. Taken together, they allow clauses to be characterized as MORE or LESS Transitive: the more features a clause has in the 'high' column in 1A-J, the more Transitive it is—the closer it is to CARDINAL Transitivity. Again, this notion is in general consonant with our pre-theoretical understanding of Transitivity" (Hopper and Thompson, 1980:253).

The phenomenon of ergativity has long constituted a 'problem' for general linguistics. With recent expansion of interest in language universals, the problematic implications have only been heightened. The bluntness with which the ergative/absolutive pattern stands opposed to the more familiar nominative/accusative pattern has made ergativity difficult to dismiss as inconsequential, or to eliminate by formal sleight-of-hand (although mirror-image formal models continue to attract some with their simplicity). Seemingly, ergativity stands as a challenge to the view that all languages are built on one universal archetype, or one archetypal set of grammar modules. (DuBois, 1987: 805).

The use of non-prototypical nominals has been discussed in the literature and need not concern us here (Hopper and Thompson, 1984). What is interesting, though, is the degree to which even unusual instances of participants occur in seemingly straightforward uses of transitivity. I would propose that this use of transitivity is a further metaphorical extension of the "mental domain" proposed by Sally Rice (1987). From a semantic point of view, the paragraphs above exploit the association of transitivity with narrative, though each does so using different clause types. The first makes use of the telic transitive and its function as a topic-shifting structure. The second one makes greater use of atelic and dispersed transitives which function to maintain topical cohesion.

In the first excerpt, the first sentence has as its matrix subject and verb the passivization *Transitivity...can be broken down*. While this is a classic "academic passive" (discussed in the following section) and the reader intuitively understands the actor to be the unmentioned linguistic researcher, the telic transitive alternation successfully leads the reader to the point of the sentence: *the component parts* which are to become the topic of the next sentence. The

following sentence again employs a telic transitive: ...*they* allow clauses.... Thus the new information of sentence one has been successfully topicalized as the Effector of the subsequent clause. Yet the new Effector is still not a traditional instigator. The embedded passive, *to be characterized*, resurrects the real actor of these clauses: the linguistic researcher. Essentially, *the component parts* is really a semantic instrument. Rhetorically, though, the authors wish to make the seemingly straightforward point that if transitivity can be broken down into component parts, and these parts may variously combine to give degrees of transitivity, then it is quite reasonable to propose a central or prototypical notion of transitivity. And, in doing so, we have not really as researchers strayed away from the Aristotelian "pre-theoretical" understanding. The use of telic transitives to impart this information gives a sense of logic to the argument that is not really there; there is, in logical fact, no particular reason why this argument is valid except that the authors wish it to be so. The use of a narrative-like structure, however, very cleverly lends an aura of inescapability to the argument because of the implication of contingent succession.

The second excerpt makes a different use of transitivity, though the narrative-like feel is the same. DuBois is setting up his argument here by showing the "gap" in knowledge regarding the study and status of ergativity as a linguistic phenomenon. The paragraph begins with a dispersed transitive squarely placing *the phenomenon of ergativity as problematic entity* as the theme. The passive in the following sentence keeps ergativity topicalized while still managing to express the Effector in the fronted subordinate clause. Even the following telic transitive manages to have some aspect of ergativity both Effector and Affected. The most powerful effect, though, is the use of transitivity with the present perfect: *has long constituted, have been heightened, has made*. The present perfect is a tense/aspect combination classically held to be a way of bringing up the past in relevant connection to the present. Here, its persistent use gives an aura of historical truth to an paragraph really expressing a theoretical interpretation. It is a very effective persuasive strategy.

As demonstrated above, the use of transitivity in academic writing can be rhetorically motivated. The above writing is richer, denser, and basically more interesting to read than

literature which follows the tradition of dry prose more strictly. The narrative-like structure also has the effect of persuading the reader to take the information at face value— or, at least, to accept it as a premise of the authors with less question— because of narrative's association with "suspension of disbelief." Nevertheless, while these excerpts are certainly more narrative-like insofar as some features of narrative are present, the one missing element is "perspectival distance." At no point in either text is the reader led to interpret a "close up" effect linguistically. The changes in transitivity appear divorced from the semantic aspect of eventhood.

It would seem that such examples contradict the earlier hypothesis that overall, the use of the whole range of transitivity forms a relative aberration in expository text which marks points of transition. In fact, upon closer inspection, it turns out this is not the case. Paragraphs such as the above tend to occur at transition spans vis-à-vis the entire discourse. In other words, they occur at those points in text where moves are being made from one major section to another at the level of paragraph or higher: introductions, conclusions, and other such "bridge" points. It is interesting to note that the same thing occurs in narrative text, but in the other direction. Relatively stative episodes in narrative occur in transition spans between episodes. These are not considered expository sections simply because they have the surface features of expository text. The same should be considered for expository discourse: transition spans are marked by transitive surface structure but should not be considered actual embedded narrative texts.

4.3.4 Passives in Expository Text

The use of passives in expository text deserves special attention simply because of the strong traditional relationship assumed between passive and transitive surface structures. There are two principle kinds of passive that occur in expository discourse. The first is most familiar, the so-called "scientific" or "academic" passive. The second I call a "propositional" passive. This type has the pragmatic force of a typical passive but thematizes an entire proposition rather than a participant. A sub-type of the propositional passive bears a strong resemblance to the "impersonal passive." It has little in common with a typical passive except for surface form though it also serves to communicate an entire proposition.

Longacre notes three "considerations" which emerge when studying the passive: (1) passives are less successful when used with a "by" phrase; (2) passives are more successful when the affected participant has undergone a fairly obvious change of state; (3) passives are more successful with a "general referent, i.e., when the agent, stated or unstated, is a group or when the entire clause is gnomic, i.e., general or proverbial in thrust" (1983:230). Functionally, as discussed in chapters two and three, passives occur when the Affected participant is topicalized or syntactic structure demands parallel subjecthood across clauses. In expository text, however, the appropriateness of a passive is explained through a combination of considerations (1) and (3) above: "While narrative discourse is agent-oriented and treats, furthermore of the actions of particular agents, expository discourse lacks this agent-orientation and deals more with generalities" (232).

The following are examples of academic passives: *The second column of Table 8 was calculated simply by aggregating all data across all speakers* (Naro, 1981:82); *Although the HP conveys the same referential information as the P, its function in narrative has been said to go beyond the establishment of a referential meaning* (Schiffrin, 1981:46); *Transitivity has been traditionally understood as a global property of an entire clause such that an activity is 'carried-over' or 'transferred' from an agent to a patient* (Hopper and Thompson, 1980:251). In each, it is either the researcher him/herself or some portion of the academic community who is the agentive participant. According to scientific tradition, the scientist is the least important part of the write-up; the scientific contribution is the main player. Therefore the scientist and/or the scientific community may be assumed and the contribution itself construed as the primary participant. Semantically, these passives behave like transitives in the "mental domain"—the "object" is not the Affected participant, the Effector is. The object represents a boundary point in the trajectory but the path of effect loops back onto the Effector (recall from chapter two that semantically, participant semantics should be separated from trajectory semantics). Pragmatically, this transitive is used for purposes other than the expression of an event. It is not intended to "topicalize" a participant. It is, rather, a linguistic instance of function following form:

what is required is an expression of a state of affairs which is thematic and a surface form allowed by English with this effect. The result is a "passive" with no real telic counterpart.

The second type of passive, the "propositional passive," exploits the pragmatics of the surface structure passive, though not the semantics. In this type, an entire proposition requires thematization. Contrast the examples above with the following: *It should be emphasized that the opening of Jewish languages to enrichment from a number of Jewish and non-Jewish sources very often assumes a cyclical character* (Wexler, 1981:133); *It is commonly believed that agents constitute a single primitive category, distinct from other categories such as patient* (Saksema, 1980:812).

In the above passives, it could be argued that a "believing" or "emphasizing" community is obliquely referred to as agent: *It is commonly believed (by the linguistic community) that...* However, this example bears a striking resemblance to existential statements such as *It is raining outside*. While there is no Effector subject obliquely referred to in such impersonal passives; pragmatically, we understand there must be an observer or experiencer capable of making the judgment.

The same sort of pragmatic understanding attains in the example above. They are an extreme example of Longacre's "gnomic" passive. Essentially, two pragmatic forces on the writer's part are in conflict. First, there is the need to express for argument's sake a piece of information regarding activity in the linguistic community. This activity is so widespread, though, that a citation list would be unmanageably long. On the other hand, the writer must contend with an engaged reader who may be willing to argue with any asserted proposition. A surface form must be used which resolves the conflict. A bald statement such as *Agents constitute a single primitive category...* cannot be used because the writer is not asserting the truth of this statement but contending its truth in the face of prevailing belief. Also, the reader can forthrightly disagree with the statement which undoes the writer's need for the premise to be accepted. Even the softer statement *Linguists tend to believe that agents...* is dangerous because the statement is still an assertion about linguists and not about linguistic knowledge. The reader might well

respond "Oh, do they?" and begin an investigation into that assertion. An impersonal, "propositional" passive solves the difficulty by not being about the agent at all, but only being about the proposition itself. The initial *it* points to the predication so completely that the specter of agency does not arise. The reader simply accepts it as the first premise of the author's argument. There is no Effector, no Affected, and no real Trajectory. The sentence has none of the semantics of a passive, and only a portion of the pragmatics.

A third kind of passive is similar to the propositional except that it seems only to have the surface structure form and none of the semantics or pragmatics of transitivity: *The present study is concerned with a class of sentence-types in modern Hebrew which are analyzed as lacking a grammatical subject, motivating a characterization of Hebrew as an '(S)VO language'* (Berman, 1980:759). There is some precedent for considering this a type of passive: *Her behavior concerns me/I am concerned about/by her behavior*. Intuitively, it seems that the telic transitive form of this verb is actually derived from the phrasal combination "to be concerned with/about." In the above example, "the present study" is behaving somewhat agentively and the verb could easily be exchanged for "examines" or "investigates" with no loss of meaning. It is probably the case that this is not a passive at all, but a formulaic phrase with the outer trappings of a passive.

4.4 Concluding Remarks: Topic-Comment Structuring and Asymmetry

This project has the underlying assumption that something like "asymmetry" motivates some aspects of grammatical organization. Specifically, the contention is that asymmetry works to create sets of imbalances which give speakers and listeners the means to manipulate and monitor their attention with regards to salient information. Most often, we find that salience is a matter of important nominals; as language users, we want to know to whom or what the various actions and states in an utterance are being ascribed. Transitivity has been shown to have a critical function in this regard by opening up and closing down the number of potential candidates for saliency. Topic-Comment structuring also works to create sets of imbalances for the purposes of guiding attention.

Unlike transitivity, which names the potential topics and dresses them in different grammatical garb depending on information importance, Topic-Comment structuring succeeds by disguising potential rivals for topichood. In an expository text, the theme, even if known outright, is still an emergent grammatical phenomenon, arising not simply through explicit mention but by persistent non-mention of other possibilities. Nominalization is carefully controlled by the use of adverbial expressions so that the theme is never lost in the blizzard of information otherwise available in even the cleanest academic prose. Like transitivity in narrative, Topic-Comment structuring serves to signal to reader where and how attention should be focused.

We have seen in this chapter a variety of uses for transitivity in expository text, almost all of which occur in transition spans. Thus a neat sort of balance is maintained between narrative and expository discourse. So often cast as opposites, in fact they emerge as complementary structures. However, this relationship is not notional in character, but one of form. It is not the case the narrative micro-texts are necessarily telling little stories, but that the transitive surface forms commonly associated with narrative signal off-line information in expository text. Even where transitivity does seem to be the organizing clause structure in expository discourse, these sections consistently mark transition points, though at a level of information structure higher than the clause.

Finally, this chapter also makes clear the strong need for a more rigorous and theoretically satisfying account of macro- and micro- information structuring in expository text. Much less is understood about how language operates in non-narrative communication than is understood about the linguistic nature of telling of stories. This chapter has barely scratched the surface of this study. Topic-Comment structuring is a far-reaching phenomenon which bears further investigation. Just as transitivity has been shown to have effects in non-narrative discourse, so too, Topic-Comment structuring might have effects in non-expository text.

CHAPTER FIVE TRANSITIVITY: CREATIVITY AND CONSTRAINT

5.1 Summary of Results

This study set out to address the question of what happens when transitivity is investigated outside the domain of narrative. The initial worrisome result was that transitivity does not seem to play a role in expository text. This proved to be inaccurate, but not before being forced to go back to models of transitivity and investigate why they were not revealing themselves outside of narrative. The result was the model of transitivity presented in Chapter Two.

The current models of transitivity addressed in this study proposed that transitivity is a semantic system organized according to prototypes. On the one hand, I do not disagree with this analysis; Sally Rice's dissertation is a powerful statement of the effectiveness of a prototype model for the semantics of transitivity. The conflict emerges at the point of surface realization. It is one thing to say that transitivity as a system has semantic elements which are prototypical in nature and quite another to say that the surface realization of transitivity is itself prototypical. Indeed, cross-linguistic child language studies point to certain relationships which appear to be universal: the endpoints of events together with the path which connects them. But cross-linguistic adult language studies point to an astonishing diversity for how these relationships are realized. Chapter two simply proposed a possible model for how the semantics of transitivity are instantiated at the level of the clause in English. However, rather than viewing clause structure as the ultimate linguistic realization of a dozen or so semantic parameters competing for expression, this model follows Berman and Slobin's approach which says that languages have in place structures which predispose speakers towards the selection of certain semantic parameters for expression. For English, *in terms of obligatory clause structure*, these parameters appear to be Endpoint-oriented. Certain results are entailed by this selectional preference. First, verbs

of motion in English leave the result of the action implied, though manner is easily incorporated. Thus, you can kick a ball and have it land ten feet away, but you cannot kick-and-land a ball ten feet away. You can look for and find a missing piece of jewelry but you cannot look-for-and-find the same. Compare this to verbs such as *fix* and *break* in which the result of the action is entailed as part of the lexical meaning. In fact, the resulting change of state is by far the semantically most prominent part of the meaning. The answer to the question *Is the car fixed yet?* is not a blow-by-blow account of how the car came to be repaired, but a simple response to whether or not the change-of-state has been realized. Both of these "verb types" are statements about the goings-on of the Endpoints in the activity. Much of what happens in Trajectories (directionality, in particular) must be specified through particles and prepositional phrases (Slobin, 1996:83).

For transitivity and its alternative realizations, the nature of the Endpoints is critical. If two Endpoints are present and connected by any kind of Trajectory, then a passive can usually result. It does not really matter if the trajectory is "high" or "low" energy. Thus, passive statements include a range from *Bill was killed by John*, *Olaf was kicked by Sven* to *The earth is orbited by the moon*, *The ground was warmed by the sun* where the first include fairly punctual verbs and the latter fairly durative ones. For English, what is significant is not the nature of the Trajectory so much as the nature of the change upon the Endpoint: the more significant the change, the greater the surface variability. Thus the model proposed in Chapter Two takes into account not only the semantics of transitivity but its pattern of expression in English. The result was a four-part classification of clause types which realize the basic patterns of transitivity as they occur in adult English: the telic transitive, atelic transitive, dispersed transitive, and intransitive or durative transitive.

Chapter Three took this model into narrative to investigate function. Two basic claims had been made for the function of transitivity. The first was that "high" transitive clauses encoded foregrounded information. The second was that transitivity and its alternative realizations signaled perspective shifts. It was found that by and large, "high" transitive clauses, interpreted here as telic transitives, did not encode foregrounded information. In fact, for

narrative, the relative grounding of information is probably not adequately captured by a simple two way distinction of foreground and background. Rather, two sets of information structure are being coded simultaneously: plot-line and time-line. The first is a non-linear structure and represents the aggregate of knowledge the reader has about the narrative at any point as well as pragmatic knowledge such as scripts and schemas. The latter is the linear structure of the narrative and controls how the reader progresses from one end of the story to the other. Both are complex entities and this project did not completely explore either; rather, they are assumptions made in the analysis. What was discovered, however, was that transitivity plays a role in linear progression by managing the perspectives available clause-to-clause. This was accomplished primarily by the "perspectival distance" entailed by the four clause types. Atelic and dispersed transitives entail a closer perspective, therefore a more limited range of available perspectives. Durative transitives provide the furthest perspectival distance, hence impose the least amount of perspective constraint. Telic transitives provide a small but robust set of alternatives including both Endpoints and the Trajectory itself.

Despite the above, transitivity is cut through by tense/aspect configurations. A telic transitive may be off the time-line of a narrative, expressing a highly forceful event, but not be managing perspective. Similarly, an atelic transitive may be on the time-line therefore able to constrain available perspectives. The key is tense/aspect. A clause which is off the time line as signaled by various sorts of subordination may provide key plot-line information, but it does not effect the linear progression of the text. The result in a one-way directional relationship: time-line events encode transitivity, but transitivity does not signal time-line events.

Chapter Four, the investigation of transitivity in expository text, was the chapter which seems to most challenge linguistic assumptions regarding the importance of transitivity. Even a brief glance into any expository text reveals a dearth of transitive clauses, regardless of type. Instead of participants, expository text features thematic propositions. Rather than events, there are situations and states. Moreover, where seemingly transitive structures occur, they are not central to linear progression of the material in the way they are for narrative. Unlike narrative, transitivity seems to signal *off-argument line* information. On-argument line information is

encoded by networks of information held together by the structure of propositions: presuppositions, assertions, and results.

The question becomes what does one do with transitivity in such a structure? The nature of discourse type and surface structure comes more clearly into focus. For example, there are passives in expository text which are pragmatically deep, meaning that ideas have been cast as participants. This well-supports the assertion that grammar can be a construal process in which parts of one semantic system are metaphorized as parts of another (the physical for the mental, for example). However, other instances of passives are clearly shallow and not intended to be statements of topicalized Affected participants (however metaphorical) but statements about states of affairs which have emerged because of absent participants. These are the "gnomic" and "academic" passives which exploit the pragmatics of transitivity in service of the purpose of expository discourse. It seems a bit of a stretch to extend the semantics of events to these instances. A better approach is to ask what the surface structure passive means to expository discourse rather than asking what elements of eventhood remain in these expressions.

Applying transitivity as a notion to such surface types is inappropriate. Instead, they should be investigated as their own type, having to do with the particulars of their pragmatic and function force as realized through the restrictions of English clause structure. Thus we come to the somewhat heretical notion that something as "basic" as transitivity is not that fundamental at all. Transitivity is a powerful system but confined to the expression of events and that which can be metaphorized or construed as events. Surface structure patterns which resemble transitive clauses but are not events need to be approached differently.

Finally, Chapter Four concluded that while transitivity is critical to linear progression where discourse is event-driven, it is not the principle structure for non-linear organization. Instead, Topic-Comment structuring appears to be the primary organizational force with its own grammatical devices for linear strategy (adverbial expressions). We are thus lead to consider the rather complex, even delicate, interactions of semantics and discourse-pragmatics. The model of transitivity proposed in Chapter Two claims that transitivity is a part of the grammatical

system having semantic content and discourse-pragmatic functions of its own. Because it participates as a grammatical system, the classification proposed is based on the imposition of discrete, syntactic categories upon the more fluid semantic system. This produces a four-way categorization in English: telic transitives, atelic transitives, dispersed transitives, and durative transitives with the caveat that true states require their own model of use, separate from transitivity. The justification for this model is simple: it appears initially to account better for both the more rigid requirements of grammatical parsing and the fluidity and range of event semantics. Further, the model was shown to interact with other discourse-pragmatic structures (topicality, referential specificity, perspectival distance) to realize a particular discourse function: the management of perspective.

When we come to expository text, we are brought up against popular ideas of semantic-syntactic-discourse/pragmatic interactions. Where in narrative, the various structural levels of transitivity work closely together, in expository text, these same connections are dismantled. Transitivity lends itself to narrative structure due to the iconicity of time, trajectory, and contingent succession. Expository text is structured in space, not time, and makes use of the components of transitivity piecemeal: when a perspective change is needed as a transition device or when a vivid example is required. It's rare to find transitivity used for the purpose of chronological linkage. When it happens, it takes place in narrative micro-texts or extended transition spans, and remains divorced from extended cause and effect chains and from perspectival distance. This would seem to challenge linguistic tradition which suggests that form, meaning, and function are not merely intertwined, but permanently linked in a given configuration. Instead, this project suggests a different possibility-- while there are indeed form-meaning-function configurations, they tend to be strongly linked only within a given discourse type. Outside that type, form, meaning, and function can be separated and put to independent use in the service of communication.

5.2 Final Remarks

This dissertation was originally motivated by statements about the underlying importance of transitivity: *The transitive clause is a ...fundamental template at the syntactic level* (Rice,

1987:262); *Transitivity is a crucial relationship in language, having a number of universally predictable consequences in grammar* (Hopper and Thompson, 1980:251). The intention was not to challenge the importance of transitivity as a linguistic structure, but to investigate whether the claims for its "basicness" were supportable. Specifically, I wished to explore prototype analyses as they were applied to transitivity. These were applied over both the semantics of transitivity (by Rice and Hopper and Thompson, for example) and clause structure (by Givón, principally) with some apparent contradictions. While most prototype proponents agreed that semantically, transitivity could not be located simply in a verb or even assigned to a clause type, at the same time prototype analyses of clause structure were making such claims—collapsing the semantics of transitivity into the surface structure of the clause by proposing the former was part of the propositional level of meaning while the latter was the communicatively-driven expression of those underlying relationships. Complicating the picture was the overwhelming tendency towards discourse analyses which were either sentence level or confined to narrative structure. Since transitivity was admitted by all to be the realization of events at the level of the clause, and events take place mostly in narrative, this did not seem that problematic a situation.

Nevertheless, if transitivity is claimed to be foundational to clause structure, especially if it is linked *prototypically* to the realization of any clause, then its exploration within only one genre is scientifically intolerable. A claim for the prototypicality of all clause structure cannot come from a single discourse type unless it is believed that surface structure is independent of genre. This has been a persistent failing on the part of linguistics. The grammar of a language as a whole has been confused with the specific realization of that grammar in use. If instead we were to take seriously DuBois' assertion that "grammars code best what speakers do most", then what emerges is a portrait of any individual language with form-function pairings featured in relationship to the purposes of the discourses which entail their use. Thus, a somewhat different picture of the language would be had depending on the notional structure in question. Different patterns of grammatical realization would be seen depending on the nature of what was being said.

Such a view of grammar would alleviate claims as to the overarching import of any one structure. If we are to believe that transitivity is a foundational structure, then we are forced into claiming that expository discourse is relatively structure free. Very little of what passes for transitivity in narrative structure is to be found in expository text. When it does occur, some of the semantics may be present, or some of the discourse-pragmatics, but not both. Instead, motivation for linguistic organization must be sought on more abstract grounds, in principles long-held to be critical to language as a system: language as a communication system is creative because its purpose is to encode and express any of the ideas and experiences of its user **AND** language as a system must be constrained to ensure to the mutual comprehensibility entailed by its purpose as a communication system. This is not a new idea in linguistics, and prototype analyses of transitivity are not insufficient because they did not take rule-governed creativity into account. Rather, as a scientific pursuit, linguistics must broaden its perspective as to the sources of the "rule governing" and the effects it produces on language as a system. The constraints on linguistic creativity are every bit as pervasive as the creativity itself. I hope that this study contributed to linguistics simply by demonstrating this process on a single linguistic structure in one language: transitivity is indeed a grammatical system for the expression of events but its use as such is exploited in only those discourse types which turn on events. In non-event driven discourse, transitivity takes a back seat to alternative forms of grammatical realization. The principle of asymmetry guiding grammatical cognition motivates this difference. In discourse types skewed toward linear organization, linear-friendly structures dominate. In discourse types skewed toward non-linear organization, non-linear-friendly structures dominate. This tendency seems well-encoded by the differences between transitivity and topic-comment structuring in English.

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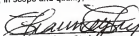
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Michelle Suzanne Schafer received her Bachelor of Arts degree in 1987 from New College of the University of South Florida. The degree was in "Language, Culture, and Society." She then spent one year in an intensive Master's of Teaching English as a Second Language program at the Experiment in International Living. Though she completed the program in 1988, she did not finish her thesis and receive the degree until 1991. Between 1988 and 1991, she taught English as a Second Language at Jacksonville University and also learned the import/export industry. Ms. Schafer returned to graduate school at the University of Florida in 1991. She studied there for two years whereupon she transferred to the State University of New York at Buffalo for one year. She returned to Florida in 1994 to finish her doctoral work in linguistics and graduated with honors in August, 1998.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



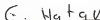
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Professor of Linguistics

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